REGIONAL QUARTERS RENTAL SURVEY

COVERING
GOVERNMENT-FURNISHED QUARTERS
LOCATED IN

NEW MEXICO SURVEY REGION

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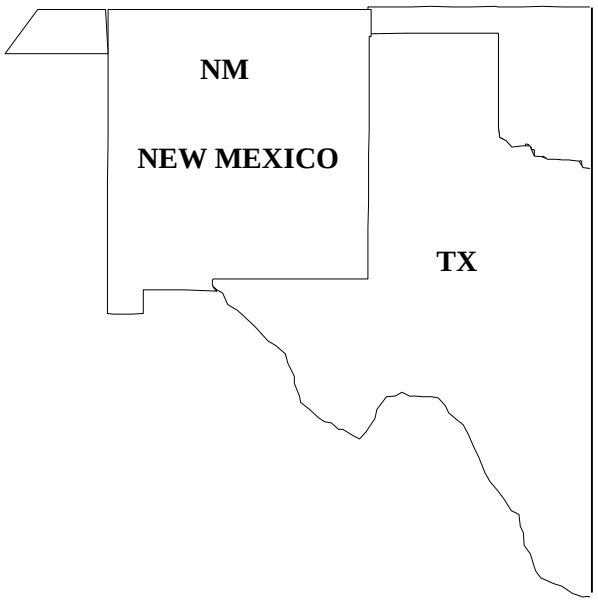

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TABLE OF CONTENTS

LISTING OF TABLES

I. SURVEY BACKGROUND

The Quarters Management and Information Systems (QMIS) Office coordinated a contractor-conducted field survey of the private rental housing market in the states of Arizona, Colorado, New Mexico, Oklahoma, and Texas, from March 2001 through May 2001. This survey was undertaken as specified in the Office of Management and Budget (OMB) Circular No. A-45, and the U.S. Department of the Interior's Departmental Quarters Handbook. OMB Circular A-45 provides for reconfirmation of the market based rental rates at least once every five years, or sooner, if conditions warrant.

The collection and analysis of rental housing data were accomplished employing methods similar to those used in previous surveys. Automated and manual analytical procedures were used to establish base rental rates for houses (including plexes), apartments, mobile homes and trailer spaces. Rental rates for cabins were established based upon their comparability with 1-bedroom houses. Rental rates for temporary housing and travel trailers were established based upon their comparability with mobile homes. Rental rates for dormitories, bunkhouses and transient quarters were established by extending the principle of comparability, as provided for in OMB Circular A-45.

The objective of regional surveys, as set forth in OMB Circular No. A-45, is to develop reasonable rental rates based upon the ". . . typical rental rates for comparable private housing in the general area in which the Government quarters are located . . .." The policy set forth in OMB Circular A-45 is as follows:

> Rental rates and charges for Government quarters and related facilities will be based upon their "reasonable value...to the employee...in the circumstances under which the quarters and facilities are provided, occupied, or made available."...reasonable value to the employee or other occupant is determined by the rule of equivalence; namely, that charges for rent and related facilities should be set at levels equal to those prevailing for comparable private housing located in the same area, when practicable...

The regional survey method uses regression analysis techniques to establish a base rental rate for a given type of quarters that reflects the typical rate for that type of housing in the survey area. Regression analysis allows the QMIS Program Office to establish adjustments that reflect: (1) the contributory value (+ or -) of housing features that the private rental market indicates are significant; and (2) relevant social and economic factors that are manifested in the rent levels of individual communities.

Because regression analysis permits assessment of (and adjustment for) different locations, as measured by market rents, several localities or states can be surveyed at a time to minimize data collection costs and the rates can be individualized for communities significantly at variance with the regional rent pattern.

The resulting product (finalized rental rates), when derived from carefully applied automated statistical analysis, provides a logical and equitable base rental rate structure supported by the market rental rate pattern of the region and the community.

II. INVENTORY OF GOVERNMENT-FURNISHED QUARTERS

This survey was initiated with an inventory of Government-furnished quarters (GFQ) managed by the agencies and bureaus that participate in the QMIS program.

Most agencies and bureaus are now using the QMIS database software to manage their inventories. This software was developed by the QMIS Program Office in Denver. The database software allows an installation or region to maintain its own housing inventory. Rents can be calculated in just minutes, even for hundreds of quarters. This decentralized system provides local control of the housing inventory. As always, the key to accurate rents is accurate, up-to-date inventory information. Software with the new housing rental rate formulas and new utility rates is distributed from Denver whenever new regional surveys are conducted or at CPI time. If you do not receive new CPI software by approximately January 1st of each year, please contact the QMIS Program Office (303-969-7240). It is important that all agencies and bureaus submit (on diskettes or via electronic mail) updates to their housing inventories at least once a year. This information is used to determine the communities and characteristics to be sampled in new Regional Surveys. The information is also used for various general management reports.

III. CONTRACTING FOR THE PRIVATE RENTAL SURVEY

A. DETERMINATION OF THE COMMUNITIES TO BE SURVEYED

Selection of the communities to be surveyed was initiated with a review of the nearest established communities identified in the quarters inventory process. Their geographic locations and populations were determined to enable selection of established communities nearest to concentrations of Government housing.

Inclusion of these communities enables a comparison of the community rental rate structure with that of the survey region. This permits a ready determination of whether the local or the regional rental rate structure should be utilized to establish the GFQ base rents. A complete discussion of this process is contained in section IV of this report.

The communities surveyed represented broad geographic and population ranges. The largest community surveyed, Albuquerque, New Mexico had a 2000 population of 448,607. The smallest community, Springerville, Arizona, had a population of 1,972. A list of the surveyed communities appears as Table 1. In accordance with OMB Circular A-45, communities with 2000 census populations below 1,500 were not analyzed.

TABLE 1 COMMUNITIES SURVEYED

STATE AND COMMUNITY	2000 CENSUS POPULATION
ARIZONA	
Flagstaff, AZ	52,894
Holbrook, AZ	4,917
Page, AZ	6,809
Springerville, AZ	1,972
Winslow, AZ	9,520
COLORADO	
Cortez, CO	3,248
NEW MEXICO	
Alamogordo, NM	35,582
Albuquerque, NM	448,607
Anthony, NM	7,904
Aztec, NM	6,378
Belen, NM	6,901
Bloomfield, NM	6,417
Carlsbad, NM	25,625
Clayton, NM	2,524
Deming, NM	14,116
Espanola, NM	9,688
Farmington, NM	37,844
Gallup, NM	20,209
Grants, NM	8,806
Las Cruces, NM	74,267
Las Vegas, NM	14,565
Lordsburg, NM	3,379
Los Alamos, NM	11,909
Raton, NM	7,282
Roswell, NM	45,293
Ruidoso, NM	7,698

TABLE 1 COMMUNITIES SURVEYED (Continued)

STATE AND COMMUNITY	2000 CENSUS POPULATION
NEW MEXICO	
Santa Fe, NM	62,203
Silver City, NM	10,545
Socorro, NM	8,877
Taos, NM	4,700
Truth or Consequences, NM	7,289
Tularosa, NM	2,864
OKLAHOMA	
Sayre, OK	4,114
Woodward, OK	11,853
TEXAS	
Alpine, TX	5,786
Amarillo, TX	173,627
Big Spring, TX	25,233
Canyon, TX	12,875
Del Rio, TX	33,867
El Paso, TX	563,662
Fabens, TX	8,043
Marfa, TX	2,121
Muleshoe, TX	4,530
Presidio, TX	4,167
Rio Grande City, TX	11,923
Roma, TX	9,617
Uvalde, TX	14,929

B. DETERMINATION OF THE HOUSING CLASSES TO BE SURVEYED

In order to determine which housing classes to survey, the inventory data for the agencies participating in the QMIS system were separated into housing classes shown in Table 2, below. Analysis of the data revealed the following numbers of units per housing class:

TABLE 2 GOVERNMENT-FURNISHED QUARTERS - (BY HOUSING CLASS)

Housing Class	# of Units	Avg. Age	Age Range	Avg. SQFT	SQFT Range
Houses					
4+ Bedrooms	29	48	(26 - 78)	1,634	(860 - 2,136)
3 Bedrooms	1,340	31	(4 - 89)	1,292	(700 - 3,516)
2 Bedrooms	1,369	57	(19 - 129)	1,023	(525 - 1,693)
1 Bedroom	432	33	(11 - 89)	742	(310 - 1,355)
Apartments					
3+ Bedrooms	12	19	(10 - 60)	1,407	(693 - 1,650)
2 Bedrooms	76	30	(10 - 62)	1,115	(534 - 1,525)
1 Bedroom	291	31	(10 - 78)	708	(312 - 1,150)
Efficiency	123	38	(14 - 73)	512	(340 - 658)
Cabins	30	48	(23 - 73)	313	(100 -788)
Mobile Homes					
4+ Bedrooms	1	25	(25 - 25)	931	(854 - 1,008)
3 Bedrooms	150	21	(9 - 37)	891	(214 - 1,329)
2 Bedrooms	94	22	(14 - 33)	718	(440 - 924)
1 Bedroom	22	21	(10 - 36)	469	(160 - 684)
Travel Trailers	9	24	(11 - 37)	222	(150 - 256)
Dormitories	49	33	(8 - 85)	768	(104 - 9,555)
Houseboats	1				
Trailer Pads	290				
TOTAL UNITS	4,318				

As with other regional surveys, the contractor was directed to survey only those housing classes for which a representative sample could be readily obtained in the private rental market. Thus, comparables were not obtained for cabins or lookouts, temporary housing, travel trailers, bunkhouses/dormitories, transient quarters or tents.

Rental rates for cabins were established by using the average rental rate for one-bedroom, single-family houses as the basis of comparison. Additional adjustments, that reflect the absence of certain standard housing features in some cabins, have been included for use when appropriate.

Since temporary housing and travel trailers (mobile home-like structures containing less than 256 square feet of gross living area) are most structurally similar to mobile homes, the rental charges for these housing classes are based upon the analysis of mobile home market rental comparables.

Since comparable bunkhouse or dormitory housing does not exist in most communities, the QMIS Program Office is unable to obtain sufficient market data to provide a satisfactory statistical base. Consequently, rental rates for bunkhouses and dormitories have been established using an extension of the Principle of Comparability, as permitted in OMB Circular A-45. Similarly, the rental charge for transient quarters has been established in conjunction with the dormitory rate structure.

OMB Circular A-45, revised October 20, 1993, excludes tents from the definition of Government-furnished quarters. Therefore, rental charges have not been established (and should not be assessed) for tents which are used as employee housing.

Four housing classes (houses/plexes, apartments, mobile homes and trailer spaces) were ultimately selected for field survey and computer analysis. The contractor was instructed to select comparables, built to Housing and Urban Development (HUD) minimum housing standards, wherever possible. The number of observations obtained for each housing class in each community surveyed varied depending upon the number of nearby Government quarters of that class. The inventory data for each of the housing classes was analyzed to determine frequencies and age and size ranges for major construction elements. The information in Table 2 was used to guide the contractor in the conduct of the survey.

C. HEATING FUELS AND UTILITY CHARGE SURVEY

To ensure reliability of the energy consumption estimates for housing where consumption is neither metered nor measured, this report uses a series of contractor-developed heating and cooling consumption tables for each general type of housing represented in the survey. The tables are based upon energy consumption studies that use a methodology meeting housing industry standards. The results reflect energy consumption for variously sized single-family houses (with and without basements), apartments, and mobile homes. A complete discussion of the energy consumption/cost methodology is contained in Section VI.

D. CONTRACTOR SELECTION

The National Business Center, Products & Services provided procurement support and project coordination for this Private Rental Survey. Reimbursement for survey expenses was underwritten by the agencies and bureaus that participate in the Quarters Management Program.

The private rental survey was completed by Delta-21 Resources Inc of Oak Ridge, TN, during the months of March 2001 through May 2001. A total of 1,178 private rental housing comparables were sampled. In addition, electrical, heating fuel, utility, appliance, and other related service charges were collected in each of the communities surveyed. The private rental housing costs that were obtained reflected current rental costs and required no adjustment for time.

IV. REGIONAL SURVEY PRINCIPLES AND PROCEDURES

A. SURVEY PRINCIPLES

The purpose of a regional survey is to determine and establish reasonable quarters rents, through an analysis of the market rents of comparable private housing in established communities nearest to concentrations of Government housing. The process of arriving at the base rent of a structure is influenced by real estate appraisal principles, statistical limitations, and administrative considerations. Often there may be a conflict among these three interests which necessitates a trade-off.

1. Real estate appraisal principles include matching comparables as closely as possible to the specific subject properties in physical characteristics and location, and adjusting in a logical direction for all significant differences.

2. Statistical principles involve: (a) trying to minimize the standard error of the estimate (unexplained variation); (b) getting a good match of characteristics between the properties analyzed and those the analysis is applied to; (c) obtaining a large and diverse sample; and (d) making adjustments for factors that are significant in explaining variation. Ideal samples may not always be available in the market; and the market search may be limited (like an appraisal) because of time and budget constraints.

3. Administrative considerations recognize that Government housing is usually not located in established communities, and that physical characteristics (such as in historical houses, one-room cabins, lookouts or dormitories) are difficult to match in the market. Government quarters are often found in areas influenced by tourism or boom/bust natural resource development that may produce unreasonable rents. Consistency and relative reasonableness, as well as time and budget constraints, must also be taken into consideration.

While trade-offs among these three considerations may result in a less than ideal application of any one of the three principles, the goal is still to produce "reasonable" Monthly Base Rental Rates (MBRR)for quarters that are relatively consistent with the local market rents for similar housing, internally consistent and logical from one unit to another, and represent reasonable value to the employee.

B. MULTIPLE REGRESSION PROCEDURES USED IN RENTAL RATE COMPUTATIONS

There are several reasons for using the regional survey method to arrive at quarters rental rates. These include accuracy, consistency, fairness, cost effectiveness/economy, and the provision in OMB Circular A-45, that regional surveys are the preferred method.

Prior to the use of the regional survey method, quarters Monthly Base Rental Rates (MBRR's) were reset every five years by individually appraising each quarters unit. The appraisal process normally relied upon the use of a small number (2-4) of comparables for each subject Government quarters unit and made logical or market abstracted adjustments to each comparable. In many instances the same comparables were used to establish rental rates for several quarters. Thus the selection of comparables became critical. Individualized appraisals often led to inconsistencies among units in the same area. Many times different agencies, managing similar or identical housing units in the same area, had substantially different rents after analyzing the same rental market. Appraisers valuing several different units using separate sets of comparables and adjustments can also sometimes arrive at rents not logically related to one another. Finally, the appraisal process required a considerable amount of travel, and individualized writing, typing and editing of appraisal reports, which was expensive and very time consuming.

Alternatively, the regional survey method relies upon much larger samples of comparables. These are analyzed, statistically, to objectively determine those factors that are significant in explaining variations in the adjusted rent of each class of comparables. Each class of comparables (houses, apartments and mobile homes) is analyzed separately to determine which locations and physical characteristics are important in explaining the differences in rents among individual rental units and communities. The computer program independently and objectively determines the best set of characteristics (formula) to explain the rental pattern. This formula varies for each survey region and housing class.

The rental rates are based upon an analysis of regional data and local data. The rents in all surveyed communities for each housing class are tested for statistical significance. All significant negative location adjustments are applied to the quarters using that community as their nearest established community. **Positive location (community) adjustments are not applied; so Government housing units near high-rent communities are charged the typical rent for the region as a whole, rather than the typical rent for that high cost location.**

The statistical process used is called forward in-and-out, step-wise multiple regression analysis. It takes all of the variables considered and forms a matrix or grid showing how every variable is related to every other variable (cross-correlation matrix). In this phase of the analysis, significant inventory items relating to the dwelling structure are coded into the computer as variables to be tested for their impact, if any, on rent. The variable to be explained (in this case rent) is called the dependent variable, because its value is determined by that of the other (independent) variables.

In forward in-and-out step-wise multiple regression analysis, the independent variable that explains the most variation in the dependent variable (rent) is selected first by the computer and entered as Step 1. The remaining variation is then recomputed, and the independent variable that explains the largest portion of the remaining variation is selected by the computer and entered as Step 2. As each new variable is added, the coefficients of all the previously entered variables are recomputed to take into account relationships

among the independent variables. If a previously entered variable no longer meets the test of significance, it is removed.

As this procedure uses the variation squared, it is highly sensitive to cases with extreme variations from the norm. Since the purpose of a regional survey is to find the typical rent for housing with certain characteristics, it is useful (and mandatory) to cull comparables with unusually high or low rents that are apparently unrelated to their characteristics. Such non-conforming rentals tend to obscure the typical pattern. To accomplish this culling, the following steps are normally taken.

Step 1. A listing of all the comparables is checked to see that the program has proper decodes, that no rental has been entered twice, and that the data is complete for each variable to be tested. The range for each rent class is also checked.

Step 2. Regression Run 1 (square foot base formula): The purified data base is analyzed for the best fit of adjusted rent versus square feet and the logarithm of square feet. This comparison is undertaken because square footage in buildings is generally the variable that explains the most variation of adjusted rent. It is also a universal variable (one that applies to all cases) and a continuous variable (one that changes in many small increments).

Step 3. A listing is produced which shows by community the rent/predicted rent ratio of each private rental sample. The predicted rent is one computed using the square foot base formula derived in step 2. The purpose of this listing is to screen out individual rentals whose ratios are far out of line relative to other rental comparables in the same community.

Step 4. A scattergram of rentals for each class, showing adjusted rent by square feet, is produced to visually display the data. These scattergrams, and the listings produced in Step 3, above, are used to remove samples with unusually high or low rents in each size grouping. A separate variable for each of the remaining communities is then entered into the next step, the full regression analysis, to see if it has a statistically significant location adjustment after other adjustments have been made. This run and a crosstab run of physical features allows for selection of other variables that are significantly represented and widely (geographically) distributed. These variables are turned into dummy (yes/no) and combination variables. Continuous and discrete variables are entered as simple variables, logarithmic transformations, and in logical combinations.

Step 5. (First Full Regression Run). The screened samples for each housing class to be analyzed, along with the variables to be tested, are analyzed to find coefficients for the significant variables. The results are checked for logic and cross-correlation; normally only one form of a variable is allowed to stay in the equation. Variables with illogical results are checked to find reasons for such deviation from expected results. Such variables are normally dropped from subsequent regression runs. Sometimes the samples containing such variables are culled; however, that action (culling samples) is uncommon.

Step 6. (Other Full Regression Runs). The full regression analysis is rerun without the illogical variables and/or dropped cases. If the end results look reasonable, the coefficients determined by regression analysis are used to compute Monthly Base Rental Rates (MBRR's) for individual Government-furnished quarters.

Step 7. (Predicted Rent Tables). The coefficients of each satisfactory regression run are put into a computer program which produces a table of predicted quarters MBRR's. The base values and all possible combinations of adjustments are reviewed to ensure the results are reliable for the full range of values. If not, the cause of the problem is diagnosed and corrected, and the regression analysis is rerun, producing a revised set of coefficients. Then Step 6 is repeated, and a new set of rent tables is produced.

V. ESTABLISHMENT OF MONTHLY BASE RENTAL RATES (MBRR)

A. USE OF BASE RENT CHARTS

Although rental computations have been automated, producing Monthly Base Rental Rates (MBRR's) and final Net Rents for most quarters, housing managers should understand the methodology used in determining the rental rates. Therefore, a set of charts has been prepared to allow the manual computation of the MBRR's for each class of rental housing. The charts have been constructed as size/age tables for the three major categories of housing (houses, apartments and mobile homes). By knowing the gross square feet of the livable area (size), the age, and the housing class of a building being used as quarters, one can determine the base rent from the proper table. The charts also contain columns and/or footnotes of rent adjustments which modify the rent from the size/age table to produce a MBRR for an individual quarters unit. **The value of one refrigerator and one stove is included in the rents listed in Tables 3a-d, 4a-d and 5a-c.** Therefore, if the Government does not provide a refrigerator or a range in the quarters, the value of each non-provided appliance should be subtracted from the monthly rent. The current values of a refrigerator and range are shown in Table 18 of this report, and may be adjusted annually by the QMIS Program Office to reflect changes in the Consumer Price Index (CPI) which may occur following the issuance of this report. In selecting the appropriate rent table, it is important to remember that the **design of the quarters, not its use, determines its category.** Thus, a house or an apartment unit **designed** to be occupied by an individual or a family, but which is actually used to house unrelated individuals, would be valued by the category for which it was designed to be used, rather than as a bunkhouse/dormitory. Where, however, a structure is not designed for occupancy by an individual, or family, or has been substantially modified to house individuals on a dormitory basis, it would be appropriate to apply bunkhouse/dormitory rates. Thus, an unmodified three-bedroom house with a **planned occupancy** of six unrelated individuals (normally two persons per bedroom) would have a rental rate determined by calculating the rental rate for a three-bedroom house and then dividing that rate by six. This rate would change if the number of **planned** occupants changed. If the house were later **structurally modified** to be used as a bunkhouse/dormitory, the rate then would be the dormitory rate.

Based upon information provided by the contractor, deductions from the monthly contract rental rate of each rental sample were made for the contributory costs of utilities, appliances, furnishings and services, provided and included in the contract rent. No deductions were made for central air conditioners, refrigerators or ranges; however, if a refrigerator or range was missing, the value was added to the adjusted rent. Central air conditioners are valued at their contributory value, if any. The resulting adjusted monthly contract rental rate represents the contributory value of the dwelling structure equipped with a refrigerator and a range.

The establishment of final monthly quarters rental charges for houses, apartments, mobile homes and cabins/lookouts requires the addition of charges for Government-provided utilities, services, appliances and furnishings. Conversely, **deductions** are required for the values of ranges and refrigerators when they are not provided by the Government.

There are a total of eleven rental rate charts: four charts for single-family housing, four charts for apartments, and three charts for mobile homes. Instructions for computing rental rates for cabins, bunkhouses and dormitories, transient quarters and trailer spaces are found in Sections V.E, V.F, V.G and V.H, respectively. Because OMB Circular A-45 excludes tents from the definition of "rental quarters," there is no charge for the provision of tents.

The use of the charts is fairly simple. First, find the chart for the category into which the GFQ fits. Next, round the square feet **down** to the nearest hundreds of square feet. Thus, if a unit has 980 square feet, the row labeled 900 SQFT would be used. Then the age should be rounded **up** to the nearest age increment. If the dwelling at issue was built in 1978, its age would be computed as 2001 (the current year) minus 1978 (the year built). Thus, in this instance, the unit is 2001 - 1978 = 23 years old; and the column headed by "25 YEARS OLD" should then be followed down to the 900 SQFT row to obtain the size/age adjusted rent.

The rent charts also have various location adjustments, as well as adjustments for physical features such as the number of bathrooms, the type of garage facilities, the condition of the housing, etc. These should be subtracted from, or added to, the size/age adjusted rent, as specified, to determine the MBRR.

When computing the final biweekly rent (net rent) to be paid, the MBRR must be adjusted to include the value of Government-provided related facilities (utilities, appliances, furnishings and services); and the administrative adjustments prescribed in OMB Circular A-45. Use Form DI 1880, Rent Computation Schedule, or similar form as may be used by agencies other than DOI.

Where a dwelling is larger than the highest square footage in the chart pertinent to that unit, use the size/age rent and adjustments of the bottom (largest SQFT) row. This may eliminate the need for some administrative adjustments due to excessive size of the housing. If a dwelling is smaller than the smallest square footage, use the lowest square footage listed on the chart.

The rent for a dwelling with more than 4 bedrooms (3 bedrooms for apartments and mobile homes) is calculated as if the unit had 4 bedrooms (3 bedrooms for apartments and mobile homes). In addition, the carport charge is the same regardless of the size of the carport; the maximum garage charge is the amount for a 2-car garage; and the fireplace charge is the same for one or more fireplaces. For rental calculation purposes a "cap" of 3 bathrooms applies. Therefore, assume 3 bathrooms when applying the bathrooms charge in the rent charts shown in tables 3a-d, 4a-d and 5a-c.

To assist in the calculation of quarters MBRR's, examples are provided in the following pages. While the rates appearing in the following tables should allow you to establish MBRR's for essentially all of your properties, we recognize that we might not have anticipated all situations and conditions. Therefore, housing managers should use professional discretion to set rates for truly unusual situations. In cases where you must use some other method to establish rates, please notify the National Business Center, Products &

Services, Quarters Operations Office (Code D-2910), 7301 West Mansfield Avenue, Lakewood, CO 80235-2230; telephone **303-969-7240**; fax 303-969-7173. You should explain the conditions, the rate used, and your reasoning so that we may anticipate such circumstances in the future. You should retain the documentation for such actions in your files.

B. SINGLE FAMILY HOUSING

For single family detached houses, including plexed dwellings and townhouses, use the rental chart which appropriately describes the housing class and the number of bedrooms of the subject quarters. The charts for houses are in tables 3a through 3d.

Assume for example, a 3-bedroom, 1 1/2-bath house, that was built in 1971 and which has a 2 car garage, two fireplaces, a central refrigerated air conditioning system and 1,290 gross square feet of living space. The house, located near Roswell, NM is fair in both exterior and interior condition.

First, the chart for 3-bedroom, good condition, 1 bathroom, houses (Table 3b) should be located and used. These charts are baseline charts, which assume that each house is in good condition inside and outside and has one full bathroom. Therefore, if the house is in good condition inside and outside and has one bathroom, no additional computations are needed. If there is a deviation from either good inside or outside condition or there are less or more bathrooms than one, then the computations must be changed as discussed below. In the first step, Table 3b is selected as the proper chart for 3-bedroom houses.

Next, the size (gross finished floor space) should be rounded **down** to the nearest 100 square feet (from 1,290 to 1,200 sqft). Under the column headed "**SQFT**," the figure 1,200 should be located. Further adjustments will be taken from this row.

Finally, the appropriate age column should be selected. The house in this example is 2001 - 1971 = 30 years old. The age should be rounded **up** to the next highest age column, which, in this case, is the column headed "**35 YRS OLD**." Follow this column down to the 1,200 square feet row to obtain the size/age "table rent" of $514.

The first adjustment is the extra bathroom charge. Follow the column headed "**PER EXTRA BATHROOM**" down to the 1,200 SQFT row to find a charge of $68 for a full extra bathroom. As the house in this example has only 1/2 of an extra bathroom, the adjustment is $68 x .5 (1/2 extra bathroom) = $34. Add $34 to the rent.

The second and third adjustments are made for a fair exterior and a fair interior condition. Follow the column headed "**FAIR EXTERIOR/INTERIOR***" down to the 1,200 SQFT row. The amount reflects a deduction of $21 for a house with a fair exterior **and** a deduction of $21 for a house with a fair interior. Since both the exterior and interior are in fair condition, the total adjustment is $-42.

The fourth adjustment is for the central refrigerated air conditioning system. Follow the column headed *"***A/C (REF)***"* down to the 1,200 SQFT row. The amount reflects an addition of $21 for central refrigerated air conditioning.

The fifth adjustment is for a two-car garage. Follow the column headed "**GARAGE (PER CAR)**" down to the 1,200 SQFT row. $43 should be charged for each car the garage is designed to accommodate. Since the house in this example has a 2-car garage, multiply the amount shown for one car ($43) times 2 to reflect the value of a 2-car garage (2 x $43 = $86). Add $86 to the rent.

The sixth adjustment is made for the fireplace. Follow the column headed "**FIREPLACES**" down to the 1,200 SQFT row. The amount reflects an addition of $48 for one or more fireplaces. Add $48 to the rent for the fireplace.

The final adjustment is the community adjustment. The house in this example is located near Roswell, NM. The notes beneath the table (see "**COMMUNITY ADJUSTMENTS**") reflect that Roswell, NM receives an adjustment of -$152. As instructed, subtract $152 from the rent. Community adjustments are given only to communities in which the market rents are **lower** than the regional average level of rents. Communities not listed in the tables have rents which are equal to or higher than the regional average rent and do not receive community adjustments.

In summary, the adjustments that produce the Monthly Base Rental Rate for the house used in this example are shown below.

Table Rent (1,200 SQFT/35 yrs. old)	$514.00
Extra Bath Adjustment (.5 X $68)	+ 34.00
Fair Exterior Condition Adjustment	- 21.00
Fair Interior Condition Adjustment	- 21.00
Central Refrigerated Air Conditioning Adjustment	+21.00
Garage Adjustment (Per Car X $43)	+ 86.00
Fireplace Adjustment	+ 48.00
Community Adjustment (Roswell, NM)	-152.00
Monthly Base Rent	$509.00

TABLE 3a MONTHLY BASE RENT - GOOD CONDITION 4 BDR, 1 BATH, HOUSES

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 4 BEDROOM, 1 BATHROOM HOUSES

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER -IOR/ INTER -IOR*	FAIR EXTER -IOR/ INTER -IOR*	POOR EXTER -IOR/ INTER -IOR*	A/C (REF)	GAR-AGE PER (CAR)	FIRE-PLACES	PLEX
700	$612	$549	$516	$494	$477	$463	$442	$+40	$+15	$-21	$-26	$+21	$+43	$+48	$-53
800	$622	$559	$526	$504	$487	$473	$452	$+46	$+15	$-21	$-26	$+21	$+43	$+48	$-53
900	$631	$568	$535	$513	$496	$482	$461	$+51	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1000	$640	$577	$545	$522	$505	$491	$470	$+57	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1100	$649	$586	$553	$531	$514	$500	$479	$+63	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1200	$658	$595	$562	$539	$522	$509	$487	$+68	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1300	$666	$603	$570	$548	$531	$517	$496	$+74	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1400	$674	$611	$578	$556	$539	$525	$504	$+80	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1500	$682	$619	$586	$564	$547	$533	$512	$+86	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1600	$690	$627	$594	$571	$554	$541	$519	$+91	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1700	$697	$634	$601	$579	$562	$548	$527	$+97	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1800	$705	$642	$609	$587	$570	$556	$535	$+103	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1900	$712	$649	$616	$594	$577	$563	$542	$+108	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2000	$720	$657	$624	$601	$584	$571	$549	$+114	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2100	$727	$664	$631	$609	$592	$578	$557	$+120	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2200	$734	$671	$638	$616	$599	$585	$564	$+125	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2300	$741	$678	$645	$623	$606	$592	$571	$+131	$+15	$-21	$-26	$+21	$+43	$+48	$-53

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CENTRAL EVAPORATIVE AIR CONDITIONING ADD $15 CARPORT ADD $15

COMMUNITY ADJUSTMENTS:

HOLBROOK, AZ.	-$129;	SPRINGERVILLE, AZ.	-$69;	WINSLOW, AZ.	-$81;	ALAMOSA, CO.	-$89;
ALAMOGORDO, NM.	-$105;	ANTHONY, NM.	-$66;	BELEN, NM.	-$23;	CARLSBAD, NM.	-$42;
CLAYTON, NM.	-$210;	DEMING, NM.	-$129;	GRANTS, NM.	-$105;	LORDSBURG, NM.	-$180;
RATON, NM.	-$89;	ROSWELL, NM.	-$152;	SOCORRO, NM.	-$103;	TRUTH OR CONSEQUENCES, NM.	-$120;
TULAROSA, NM.	-$79;	SAYRE, OK.	-$254;	WOODWARD, OK.	-$143;	ALPINE, TX.	-$43;
BIG SPRING, TX.	-$178;	CANYON, TX.	-$17;	FABENS, TX.	-$142;	MARFA, TX.	-$140;
MULESHOE, TX.	-$214;	PRESIDIO, TX.	-$211;	UVALDE, TX.	-$89;		

* - IF BOTH THE INTERIOR AND EXTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.
REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 3b MONTHLY BASE RENT - GOOD CONDITION 3 BDR, 1 BATH, HOUSES

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 3 BEDROOM, 1 BATHROOM HOUSES

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER -IOR/ INTER -IOR*	FAIR EXTER -IOR/ INTER -IOR*	POOR EXTER -IOR/ INTER -IOR*	A/C (REF)	GAR-AGE PER (CAR)	FIRE-PLACES	PLEX
500	$565	$502	$469	$446	$430	$416	$394	$+29	$+15	$-21	$-26	$+21	$+43	$+48	$-53
600	$576	$513	$480	$458	$441	$427	$406	$+34	$+15	$-21	$-26	$+21	$+43	$+48	$-53
700	$587	$524	$491	$469	$452	$438	$417	$+40	$+15	$-21	$-26	$+21	$+43	$+48	$-53
800	$597	$534	$501	$479	$462	$448	$427	$+46	$+15	$-21	$-26	$+21	$+43	$+48	$-53
900	$606	$543	$510	$488	$471	$457	$436	$+51	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1000	$615	$552	$520	$497	$480	$466	$445	$+57	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1100	$624	$561	$528	$506	$489	$475	$454	$+63	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1200	$633	$570	$537	$514	$497	$484	$462	$+68	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1300	$641	$578	$545	$523	$506	$492	$471	$+74	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1400	$649	$586	$553	$531	$514	$500	$479	$+80	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1500	$657	$594	$561	$539	$522	$508	$487	$+86	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1600	$665	$602	$569	$546	$529	$516	$494	$+91	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1700	$672	$609	$576	$554	$537	$523	$502	$+97	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1800	$680	$617	$584	$562	$545	$531	$510	$+103	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1900	$687	$624	$591	$569	$552	$538	$517	$+108	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2000	$695	$632	$599	$576	$559	$546	$524	$+114	$+15	$-21	$-26	$+21	$+43	$+48	$-53
2100	$702	$639	$606	$584	$567	$553	$532	$+120	$+15	$-21	$-26	$+21	$+43	$+48	$-53

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CENTRAL EVAPORATIVE AIR CONDITIONING ADD $15 CARPORT ADD $15

COMMUNITY ADJUSTMENTS:

HOLBROOK, AZ.	-$129;	SPRINGERVILLE, AZ.	-$69;	WINSLOW, AZ.	-$81;	ALAMOSA, CO.	-$89;
ALAMOGORDO, NM.	-$105;	ANTHONY, NM.	-$66;	BELEN, NM.	-$23;	CARLSBAD, NM.	-$42;
CLAYTON, NM.	-$210;	DEMING, NM.	-$129;	GRANTS, NM.	-$105;	LORDSBURG, NM.	-$180;
RATON, NM.	-$89;	ROSWELL, NM.	-$152;	SOCORRO, NM.	-$103;	TRUTH OR CONSEQUENCES, NM.	-$120;
TULAROSA, NM.	-$79;	SAYRE, OK.	-$254;	WOODWARD, OK.	-$143;	ALPINE, TX.	-$43;
BIG SPRING, TX.	-$178;	CANYON, TX.	-$17;	FABENS, TX.	-$142;	MARFA, TX.	-$140;
MULESHOE, TX.	-$214;	PRESIDIO, TX.	-$211;	UVALDE, TX.	-$89;		

* - IF BOTH THE INTERIOR AND EXTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.
REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 3c MONTHLY BASE RENT - GOOD CONDITION 2 BDR, 1 BATH, HOUSES

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 2 BEDROOM, 1 BATHROOM HOUSES

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER -IOR/ INTER -IOR*	FAIR EXTER -IOR/ INTER -IOR*	POOR EXTER -IOR/ INTER -IOR*	A/C (REF)	GAR-AGE PER (CAR)	FIRE-PLACES	PLEX
300	$506	$443	$411	$388	$371	$357	$336	$+17	$+15	$-21	$-26	$+21	$+43	$+48	$-53
400	$521	$458	$425	$403	$386	$372	$351	$+23	$+15	$-21	$-26	$+21	$+43	$+48	$-53
500	$534	$471	$438	$416	$399	$385	$364	$+29	$+15	$-21	$-26	$+21	$+43	$+48	$-53
600	$546	$483	$450	$427	$410	$397	$375	$+34	$+15	$-21	$-26	$+21	$+43	$+48	$-53
700	$556	$493	$460	$438	$421	$407	$386	$+40	$+15	$-21	$-26	$+21	$+43	$+48	$-53
800	$566	$503	$470	$448	$431	$417	$396	$+46	$+15	$-21	$-26	$+21	$+43	$+48	$-53
900	$576	$513	$480	$458	$441	$427	$405	$+51	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1000	$585	$522	$489	$467	$450	$436	$415	$+57	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1100	$594	$531	$498	$475	$458	$445	$423	$+63	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1200	$602	$539	$506	$484	$467	$453	$432	$+68	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1300	$610	$547	$514	$492	$475	$461	$440	$+74	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1400	$618	$555	$523	$500	$483	$469	$448	$+80	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1500	$626	$563	$530	$508	$491	$477	$456	$+86	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1600	$634	$571	$538	$516	$499	$485	$464	$+91	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1700	$642	$579	$546	$523	$506	$493	$471	$+97	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1800	$649	$586	$553	$531	$514	$500	$479	$+103	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1900	$657	$594	$561	$538	$521	$508	$486	$+108	$+15	$-21	$-26	$+21	$+43	$+48	$-53

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CENTRAL EVAPORATIVE AIR CONDITIONING ADD $15 CARPORT ADD $15

COMMUNITY ADJUSTMENTS:

HOLBROOK, AZ.	-$129;	SPRINGERVILLE, AZ.	-$69;	WINSLOW, AZ.	-$81;	ALAMOSA, CO.	-$89;
ALAMOGORDO, NM.	-$105;	ANTHONY, NM.	-$66;	BELEN, NM.	-$23;	CARLSBAD, NM.	-$42;
CLAYTON, NM.	-$210;	DEMING, NM.	-$129;	GRANTS, NM.	-$105;	LORDSBURG, NM.	-$180;
RATON, NM.	-$89;	ROSWELL, NM.	-$152;	SOCORRO, NM.	-$103;	TRUTH OR CONSEQUENCES, NM.	-$120;
TULAROSA, NM.	-$79;	SAYRE, OK.	-$254;	WOODWARD, OK.	-$143;	ALPINE, TX.	-$43;
BIG SPRING, TX.	-$178;	CANYON, TX.	-$17;	FABENS, TX.	-$142;	MARFA, TX.	-$140;
MULESHOE, TX.	-$214;	PRESIDIO, TX.	-$211;	UVALDE, TX.	-$89;		

* - IF BOTH THE INTERIOR AND EXTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.
REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 3d MONTHLY BASE RENT - GOOD CONDITION 1 BDR, 1 BATH, HOUSES

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 1 BEDROOM, 1 BATHROOM HOUSES

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER -IOR/ INTER -IOR*	FAIR EXTER -IOR/ INTER -IOR*	POOR EXTER -IOR/ INTER -IOR*	A/C (REF)	GAR-AGE PER (CAR)	FIRE-PLACES	PLEX
100	$420	$357	$325	$302	$285	$272	$250	$+6	$+15	$-21	$-26	$+21	$+43	$+48	$-53
200	$448	$385	$352	$330	$313	$299	$278	$+11	$+15	$-21	$-26	$+21	$+43	$+48	$-53
300	$467	$404	$371	$349	$332	$318	$297	$+17	$+15	$-21	$-26	$+21	$+43	$+48	$-53
400	$482	$419	$386	$364	$347	$333	$312	$+23	$+15	$-21	$-26	$+21	$+43	$+48	$-53
500	$495	$432	$399	$377	$360	$346	$324	$+29	$+15	$-21	$-26	$+21	$+43	$+48	$-53
600	$506	$443	$410	$388	$371	$357	$336	$+34	$+15	$-21	$-26	$+21	$+43	$+48	$-53
700	$517	$454	$421	$399	$382	$368	$347	$+40	$+15	$-21	$-26	$+21	$+43	$+48	$-53
800	$527	$464	$431	$409	$392	$378	$357	$+46	$+15	$-21	$-26	$+21	$+43	$+48	$-53
900	$536	$473	$440	$418	$401	$387	$366	$+51	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1000	$545	$482	$450	$427	$410	$397	$375	$+57	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1100	$554	$491	$458	$436	$419	$405	$384	$+63	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1200	$563	$500	$467	$444	$427	$414	$392	$+68	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1300	$571	$508	$475	$453	$436	$422	$401	$+74	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1400	$579	$516	$483	$461	$444	$430	$409	$+80	$+15	$-21	$-26	$+21	$+43	$+48	$-53
1500	$587	$524	$491	$469	$452	$438	$417	$+86	$+15	$-21	$-26	$+21	$+43	$+48	$-53

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CENTRAL EVAPORATIVE AIR CONDITIONING ADD $15 CARPORT ADD $15

COMMUNITY ADJUSTMENTS:

HOLBROOK, AZ.	-$129;	SPRINGERVILLE, AZ.	-$69;	WINSLOW, AZ.	-$81;	ALAMOSA, CO.	-$89;
ALAMOGORDO, NM.	-$105;	ANTHONY, NM.	-$66;	BELEN, NM.	-$23;	CARLSBAD, NM.	-$42;
CLAYTON, NM.	-$210;	DEMING, NM.	-$129;	GRANTS, NM.	-$105;	LORDSBURG, NM.	-$180;
RATON, NM.	-$89;	ROSWELL, NM.	-$152;	SOCORRO, NM.	-$103;	TRUTH OR CONSEQUENCES, NM.	-$120;
TULAROSA, NM.	-$79;	SAYRE, OK.	-$254;	WOODWARD, OK.	-$143;	ALPINE, TX.	-$43;
BIG SPRING, TX.	-$178;	CANYON, TX.	-$17;	FABENS, TX.	-$142;	MARFA, TX.	-$140;
MULESHOE, TX.	-$214;	PRESIDIO, TX.	-$211;	UVALDE, TX.	-$89;		

* - IF BOTH THE INTERIOR AND EXTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.
REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

C. APARTMENTS

For all apartment units, use the rental chart which appropriately describes the housing class and the number of bedrooms of the subject quarters. The charts for apartments are in Tables 4a through 4d.

Assume a 2-bedroom, 2 bathroom apartment, near Gallup, NM with 760 square feet. The exterior is in poor condition; the interior is in good condition. The apartment, which was built in 1956, is 45 years old (2001 - 1956), has a carport, and central refrigerated air conditioning.

First, the two bedroom chart for good condition apartments (Table 4b) should be located and used. These charts are baseline charts, which assume that each apartment is in good condition inside and outside and has one full bathroom. Therefore, if the apartment is in good condition inside and outside and has one bathroom, no additional computations are needed. If there is a deviation from either good inside or outside condition or there are less or more bathrooms than one, then the computations must be changed as discussed below. In the first step, Table 4b is selected as the proper chart for 2-bedroom apartments.

In the second step the size (gross living area) is rounded **down** from 760 to 700 square feet. Under the column headed **"SQFT**" the figure 700 should be located. All further adjustments will be taken from this row.

In the third step the appropriate age column is selected. A 45-year old apartment is between 35 and 45 years old; therefore, the **"45 YRS OLD"** column should be used. A two-bedroom apartment, in good condition with 700 square feet of living space (gross), and which is 45 years of age, has a "Table Rent" of $385 per month.

The first adjustment is the extra bathroom adjustment charge. Following the 700 SQFT row along to the column headed **"PER EXTRA BATHROOM"** you will find a charge of $38. Add $38 to the rent.

The second adjustment is for an poor exterior condition. Follow the 700 SQFT row across the table to the column headed **"POOR EXTERIOR/INTERIOR***" a deduction of $15 is shown. Table 4b assumes the condition to be good and since, in our example, the apartment's interior condition is good, therefore, no adjustment is needed for interior condition. Subtract $15 for the poor exterior condition.

The third adjustment is for a carport. Beneath the table, under **"STRUCTURAL ADJUSTMENTS,"** there is an instruction to add $15 for a carport of any size. As instructed add $15 to the rent of this apartment.

The fourth adjustment is for central refrigerated air conditioning. Beneath the table, under **"STRUCTURAL ADJUSTMENTS,"** there is an instruction to add $71 for Central Refrigerated Air Conditioning.

The final adjustment is the community adjustment. The apartment in this example is located near Gallup, NM. The notes beneath the table (see "**COMMUNITY ADJUSTMENTS**") show no adjustment for Gallup, NM. Therefore, rental values in Gallup, NM for apartments are equal to or greater than the regional average. Since positive community adjustments are not applied, no community adjustment is shown for Gallup, NM.

In summary, the Monthly Base Rental Rate for the apartment in this example is determined as follows:

Table Rent (700 SQFT/45 years old)	$385.00
Extra Bath Adjustment (1 X $38)	+38.00
Poor Exterior Adjustment	-15.00
Carport Adjustment	+15.00
Central Refrigerated Air Conditioning Adjustment	+71.00
Location Adjustment (Gallup, NM)	- 00.00
Monthly Base Rental Rate	$494.00

TABLE 4a MONTHLY BASE RENT - GOOD CONDITION 3 BDR, 1 BATH, APTS

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 3 BEDROOM, 1 BATHROOM APARTMENTS

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER IOR/ INTER IOR*	FAIR EXTER- IOR/ INTER- IOR*	POOR EXTER- IOR/ INTER- IOR*	GAR- AGE (ANY SIZE)
600	$472	$461	$450	$439	$428	$417	$395	$+32	$+10	$-10	$-15	$+20
700	$478	$467	$456	$445	$433	$422	$400	$+38	$+10	$-10	$-15	$+20
800	$483	$472	$461	$450	$439	$428	$406	$+43	$+10	$-10	$-15	$+20
900	$489	$478	$466	$455	$444	$433	$411	$+49	$+10	$-10	$-15	$+20
1000	$494	$483	$472	$461	$450	$439	$416	$+54	$+10	$-10	$-15	$+20
1100	$499	$488	$477	$466	$455	$444	$422	$+59	$+10	$-10	$-15	$+20
1200	$505	$494	$483	$472	$460	$449	$427	$+65	$+10	$-10	$-15	$+20
1300	$510	$499	$488	$477	$466	$455	$433	$+70	$+10	$-10	$-15	$+20
1400	$516	$505	$493	$482	$471	$460	$438	$+76	$+10	$-10	$-15	$+20
1500	$521	$510	$499	$488	$477	$466	$443	$+81	$+10	$-10	$-15	$+20
1600	$526	$515	$504	$493	$482	$471	$449	$+86	$+10	$-10	$-15	$+20
1700	$532	$521	$510	$499	$487	$476	$454	$+92	$+10	$-10	$-15	$+20
1800	$537	$526	$515	$504	$493	$482	$460	$+97	$+10	$-10	$-15	$+20

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CARPORT (ANY SIZE): ADD $15
FIREPLACE(S): ADD $20
CENTRAL REFRIGERATED AIR CONDITIONING ADD $71
CENTRAL EVAPORATIVE AIR CONDITIONING ADD $20

COMMUNITY ADJUSTMENTS:

WINSLOW, AZ. -$45; BLOOMFIELD, NM. -$76; CARLSBAD, NM. -$38; GRANTS, NM. -$42;

*IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 4b MONTHLY BASE RENT - GOOD CONDITION 2 BDR, 1 BATH, APTS

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 2 BEDROOM, 1 BATHROOM APARTMENTS

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER IOR/ INTER IOR*	FAIR EXTER- IOR/ INTER- IOR*	POOR EXTER- IOR/ INTER- IOR*	GAR- AGE (ANY SIZE)
400	$413	$402	$391	$380	$369	$358	$336	$+22	$+10	$-10	$-15	$+20
500	$419	$408	$397	$386	$374	$363	$341	$+27	$+10	$-10	$-15	$+20
600	$424	$413	$402	$391	$380	$369	$347	$+32	$+10	$-10	$-15	$+20
700	$430	$419	$407	$396	$385	$374	$352	$+38	$+10	$-10	$-15	$+20
800	$435	$424	$413	$402	$391	$380	$357	$+43	$+10	$-10	$-15	$+20
900	$440	$429	$418	$407	$396	$385	$363	$+49	$+10	$-10	$-15	$+20
1000	$446	$435	$424	$413	$401	$390	$368	$+54	$+10	$-10	$-15	$+20
1100	$451	$440	$429	$418	$407	$396	$374	$+59	$+10	$-10	$-15	$+20
1200	$457	$446	$434	$423	$412	$401	$379	$+65	$+10	$-10	$-15	$+20
1300	$462	$451	$440	$429	$418	$407	$384	$+70	$+10	$-10	$-15	$+20
1400	$467	$456	$445	$434	$423	$412	$390	$+76	$+10	$-10	$-15	$+20
1500	$473	$462	$451	$440	$428	$417	$395	$+81	$+10	$-10	$-15	$+20
1600	$478	$467	$456	$445	$434	$423	$401	$+86	$+10	$-10	$-15	$+20

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CARPORT (ANY SIZE): ADD $15
FIREPLACE(S): ADD $20
CENTRAL REFRIGERATED AIR CONDITIONING ADD $71
CENTRAL EVAPORATIVE AIR CONDITIONING ADD $20

COMMUNITY ADJUSTMENTS:

WINSLOW, AZ. -$45; BLOOMFIELD, NM. -$76; CARLSBAD, NM. -$38; GRANTS, NM. -$42;

*IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 4c MONTHLY BASE RENT - GOOD CONDITION 1 BDR, 1 BATH, APTS

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 1 BEDROOM, 1 BATHROOM APARTMENTS

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER IOR/ INTER IOR*	FAIR EXTER- IOR/ INTER- IOR*	POOR EXTER- IOR/ INTER- IOR*	GAR- AGE (ANY SIZE)
300	$346	$335	$324	$313	$302	$290	$268	$+16	$+10	$-10	$-15	$+20
400	$351	$340	$329	$318	$307	$296	$274	$+22	$+10	$-10	$-15	$+20
500	$357	$346	$335	$323	$312	$301	$279	$+27	$+10	$-10	$-15	$+20
600	$362	$351	$340	$329	$318	$307	$284	$+32	$+10	$-10	$-15	$+20
700	$368	$356	$345	$334	$323	$312	$290	$+38	$+10	$-10	$-15	$+20
800	$373	$362	$351	$340	$329	$317	$295	$+43	$+10	$-10	$-15	$+20
900	$378	$367	$356	$345	$334	$323	$301	$+49	$+10	$-10	$-15	$+20
1000	$384	$373	$362	$350	$339	$328	$306	$+54	$+10	$-10	$-15	$+20
1100	$389	$378	$367	$356	$345	$334	$311	$+59	$+10	$-10	$-15	$+20
1200	$395	$383	$372	$361	$350	$339	$317	$+65	$+10	$-10	$-15	$+20
1300	$400	$389	$378	$367	$356	$344	$322	$+70	$+10	$-10	$-15	$+20
1400	$405	$394	$383	$372	$361	$350	$328	$+76	$+10	$-10	$-15	$+20
1500	$411	$400	$389	$377	$366	$355	$333	$+81	$+10	$-10	$-15	$+20

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CARPORT (ANY SIZE): ADD $15
FIREPLACE(S): ADD $20
CENTRAL REFRIGERATED AIR CONDITIONING ADD $71
CENTRAL EVAPORATIVE AIR CONDITIONING ADD $20

COMMUNITY ADJUSTMENTS:

WINSLOW, AZ. -$45; BLOOMFIELD, NM. -$76; CARLSBAD, NM. -$38; GRANTS, NM. -$42;

*IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 4d MONTHLY BASE RENT - GOOD CONDITION 0 BDR, 1 BATH, APTS

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 0 BEDROOM, 1 BATHROOM APARTMENTS

SQFT	5 YRS OLD	15 YRS OLD	25 YRS OLD	35 YRS OLD	45 YRS OLD	55 YRS OLD	75+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER IOR/ INTER IOR*	FAIR EXTER- IOR/ INTER- IOR*	POOR EXTER- IOR/ INTER- IOR*	GAR- AGE (ANY SIZE)
100	$248	$236	$225	$214	$203	$192	$170	$+5	$+10	$-10	$-15	$+20
200	$253	$242	$231	$220	$209	$197	$175	$+11	$+10	$-10	$-15	$+20
300	$258	$247	$236	$225	$214	$203	$181	$+16	$+10	$-10	$-15	$+20
400	$264	$253	$242	$230	$219	$208	$186	$+22	$+10	$-10	$-15	$+20
500	$269	$258	$247	$236	$225	$214	$191	$+27	$+10	$-10	$-15	$+20
600	$275	$263	$252	$241	$230	$219	$197	$+32	$+10	$-10	$-15	$+20
700	$280	$269	$258	$247	$236	$224	$202	$+38	$+10	$-10	$-15	$+20
800	$285	$274	$263	$252	$241	$230	$208	$+43	$+10	$-10	$-15	$+20
900	$291	$280	$269	$257	$246	$235	$213	$+49	$+10	$-10	$-15	$+20
1000	$296	$285	$274	$263	$252	$241	$218	$+54	$+10	$-10	$-15	$+20
1100	$302	$290	$279	$268	$257	$246	$224	$+59	$+10	$-10	$-15	$+20

ADDITIONAL ADJUSTMENTS:

STRUCTURAL ADJUSTMENTS:

CARPORT (ANY SIZE): ADD $15
FIREPLACE(S): ADD $20
CENTRAL REFRIGERATED AIR CONDITIONING ADD $71
CENTRAL EVAPORATIVE AIR CONDITIONING ADD $20

COMMUNITY ADJUSTMENTS:

WINSLOW, AZ. -$45; BLOOMFIELD, NM. -$76; CARLSBAD, NM. -$38; GRANTS, NM. -$42;

*IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

D. MOBILE HOMES, TRAVEL TRAILERS, AND HOUSEBOATS

For these housing classes, use the mobile home base rental charts (Tables 5a-5c). To familiarize the reader with these charts, assume a 490 square foot, 1-bedroom mobile home built in 1966 with a 3/4 bathroom. This mobile home is in poor interior and poor exterior condition and is located near Sayre, OK. The Monthly Base Rental Rate for the mobile home in this example is calculated from Table 5c as follows.

The 1-bedroom chart for good condition mobile homes (Table 5c) should be located and used. This chart is a baseline chart, which assumes that each mobile home is in good condition inside and outside and has one full bathroom. Therefore, if the mobile home is in good condition inside and outside and has one full bathroom, no additional computations are needed. If there is a deviation from either good inside or outside condition or there are less or more bathrooms than one, then the computations must be changed accordingly.

First, locate the table for mobile homes in good condition with *one full bathroom* (Table 5c). Next, the gross square feet of living area should be rounded down to 400 square feet, and the **age** (2001 - 1966 = 35 years) is rounded **up** to 35+ years. The column headed **"SQFT**" is followed **down** to 400. All other adjustments are taken from this row. On this row, under the column headed **"35+ YRS OLD,"** the "Table Rent" is $172.

The base rental value of $172 (computed above) includes the value of one full bathroom. Since the unit in this example has only a 3/4 bathroom, an adjustment must be made for the missing 1/4 bathroom. At the top of the table is a column titled **"PER EXTRA BATHROOM."** Follow this column down to the 400 SQFT row. A value of $17 is shown. Multiply this value times .25 (1/4 bathroom) to calculate the value of the missing 1/4 bathroom ($17 X .25 = $4.25). Subtract $4.00 (rounded) from the rent.

The second and third adjustments are for the condition of the unit. Follow the 400 SQFT row to the column headed **"POOR EXTERIOR/INTERIOR*"**; subtract $15 for the poor exterior condition and another $15 for the poor interior condition.

The final adjustment is the community adjustment. The mobile home in this example is located near Sayre, OK. The notes beneath the table (see "**COMMUNITY ADJUSTMENTS**") show an adjustment of -$124 for Sayre, OK. The rental values for mobile homes in Sayre, OK are much lower than the survey area average. The rent for mobile homes which use Sayre, OK as the nearest established community should be reduced by $124.

The Monthly Base Rental Rate for this mobile home is shown below.

Table Rent (400 SQFT/35+ years old) $172.00

Bathroom Adjustment (.25 X $17) . . . . . -4.00

Poor Exterior . . . . . - 15.00

Poor Interior . . . . . - 15.00

Location Adjustment (Sayre, OK) . . . . . -124.00

Computed Monthly Base Rental Rate $14.00

Actual Monthly Base Rental Rate (Minimum Base) $140.00

Note: In this example, the Monthly Base Rental Rate computes to $14.00, which is less than the $140.00 minimum Monthly Base Rental Rate for the New Mexico Survey Region (refer to the footnotes on each rent table for the minimum base rent). Therefore, the Monthly Base Rental Rate for the mobile home in this example will be set at $140.00. Keep in mind that the *Monthly Base Rental Rate* is different from the minimum monthly *net rent*. Thus, $140.00 is not the minimum final net rent possible.

The minimum base rent is set slightly higher than the average trailer pad rent for the region. The reasoning being that the base rent for a house, apartment, or mobile home should always be higher than a bare piece of ground.

TABLE 5a MONTHLY BASE RENT - GOOD CONDITION 3 BDR, 1 BATH, MOB HM

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 3 BEDROOM, 1 BATHROOM MOBILE HOMES

SQFT	5 YRS OLD	10 YRS OLD	15 YRS OLD	20 YRS OLD	25 YRS OLD	30 YRS OLD	35+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER-IOR/ INTER-IOR*	FAIR EXTER-IOR/ INTER-IOR*	POOR EXTER-IOR/ INTER-IOR*
400	$397	$373	$358	$347	$338	$330	$324	$+17	$+10	$-10	$-15
500	$401	$378	$362	$351	$342	$335	$328	$+21	$+10	$-10	$-15
600	$406	$382	$367	$355	$346	$339	$332	$+25	$+10	$-10	$-15
700	$410	$386	$371	$359	$350	$343	$337	$+29	$+10	$-10	$-15
800	$414	$390	$375	$364	$355	$347	$341	$+34	$+10	$-10	$-15
900	$418	$394	$379	$368	$359	$351	$345	$+38	$+10	$-10	$-15
1000	$422	$399	$383	$372	$363	$356	$349	$+42	$+10	$-10	$-15
1100	$427	$403	$388	$376	$367	$360	$353	$+46	$+10	$-10	$-15
1200	$431	$407	$392	$380	$371	$364	$358	$+50	$+10	$-10	$-15
1300	$435	$411	$396	$385	$376	$368	$362	$+55	$+10	$-10	$-15
1400	$439	$415	$400	$389	$380	$372	$366	$+59	$+10	$-10	$-15
1500	$443	$420	$404	$393	$384	$377	$370	$+63	$+10	$-10	$-15
1600	$448	$424	$409	$397	$388	$381	$374	$+67	$+10	$-10	$-15

STRUCTURAL ADJUSTMENTS:

GARAGE (ANY SIZE):	ADD	$60
CARPORT (ANY SIZE):	ADD	$56
CENTRAL REFRIGERATED AIR CONDITIONING	ADD	$20
CENTRAL EVAPORATIVE AIR CONDITIONING	ADD	$15

COMMUNITY ADJUSTMENTS:

CARLSBAD, NM.	-$36;	GRANTS, NM.	-$47;	TRUTH OR CONSEQUENCES, NM.	-$15;	SAYRE, OK.	-$124;
ALPINE, TX.	-$13;	MARFA, TX.	-$19;	PRESIDIO, TX.	-$61;		

* - IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 5b MONTHLY BASE RENT - GOOD CONDITION 2 BDR, 1 BATH, MOB HM

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 2 BEDROOM, 1 BATHROOM MOBILE HOMES

SQFT	5 YRS OLD	10 YRS OLD	15 YRS OLD	20 YRS OLD	25 YRS OLD	30 YRS OLD	35+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER-IOR/ INTER-IOR*	FAIR EXTER-IOR/ INTER-IOR*	POOR EXTER-IOR/ INTER-IOR*
400	$321	$297	$282	$271	$262	$254	$248	$+17	$+10	$-10	$-15
500	$325	$302	$286	$275	$266	$259	$252	$+21	$+10	$-10	$-15
600	$330	$306	$291	$279	$270	$263	$256	$+25	$+10	$-10	$-15
700	$334	$310	$295	$283	$274	$267	$261	$+29	$+10	$-10	$-15
800	$338	$314	$299	$288	$279	$271	$265	$+34	$+10	$-10	$-15
900	$342	$318	$303	$292	$283	$275	$269	$+38	$+10	$-10	$-15
1000	$346	$323	$307	$296	$287	$280	$273	$+42	$+10	$-10	$-15
1100	$351	$327	$312	$300	$291	$284	$277	$+46	$+10	$-10	$-15
1200	$355	$331	$316	$304	$295	$288	$282	$+50	$+10	$-10	$-15
1300	$359	$335	$320	$309	$300	$292	$286	$+55	$+10	$-10	$-15
1400	$363	$339	$324	$313	$304	$296	$290	$+59	$+10	$-10	$-15
1500	$367	$344	$328	$317	$308	$301	$294	$+63	$+10	$-10	$-15

STRUCTURAL ADJUSTMENTS:

GARAGE (ANY SIZE):	ADD	$60
CARPORT (ANY SIZE):	ADD	$56
CENTRAL REFRIGERATED AIR CONDITIONING	ADD	$20
CENTRAL EVAPORATIVE AIR CONDITIONING	ADD	$15

COMMUNITY ADJUSTMENTS:

CARLSBAD, NM.	-$36;	GRANTS, NM.	-$47;	TRUTH OR CONSEQUENCES, NM.	-$15;	SAYRE, OK.	-$124;
ALPINE, TX.	-$13;	MARFA, TX.	-$19;	PRESIDIO, TX.	-$61;		

* - IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

TABLE 5c MONTHLY BASE RENT - GOOD CONDITION 1 BDR, 1 BATH, MOB HM

THE NEW MEXICO QUARTERS MONTHLY BASE RENT CHART
FOR GOOD CONDITION 1 BEDROOM, 1 BATHROOM MOBILE HOMES

SQFT	5 YRS OLD	10 YRS OLD	15 YRS OLD	20 YRS OLD	25 YRS OLD	30 YRS OLD	35+ YRS OLD	PER EXTRA BATH ROOM	EXCEL EXTER-IOR/ INTER-IOR*	FAIR EXTER-IOR/ INTER-IOR*	POOR EXTER-IOR/ INTER-IOR*
100	$233	$209	$194	$182	$173	$166	$159	$+4	$+10	$-10	$-15
200	$237	$213	$198	$186	$177	$170	$164	$+8	$+10	$-10	$-15
300	$241	$217	$202	$191	$182	$174	$168	$+13	$+10	$-10	$-15
400	$245	$221	$206	$195	$186	$178	$172	$+17	$+10	$-10	$-15
500	$249	$226	$210	$199	$190	$183	$176	$+21	$+10	$-10	$-15
600	$254	$230	$215	$203	$194	$187	$180	$+25	$+10	$-10	$-15
700	$258	$234	$219	$207	$198	$191	$185	$+29	$+10	$-10	$-15
800	$262	$238	$223	$212	$203	$195	$189	$+34	$+10	$-10	$-15
900	$266	$242	$227	$216	$207	$199	$193	$+38	$+10	$-10	$-15
1000	$270	$247	$231	$220	$211	$204	$197	$+42	$+10	$-10	$-15
1100	$275	$251	$236	$224	$215	$208	$201	$+46	$+10	$-10	$-15
1200	$279	$255	$240	$228	$219	$212	$206	$+50	$+10	$-10	$-15

STRUCTURAL ADJUSTMENTS:

GARAGE (ANY SIZE):	ADD	$60
CARPORT (ANY SIZE):	ADD	$56
CENTRAL REFRIGERATED AIR CONDITIONING	ADD	$20
CENTRAL EVAPORATIVE AIR CONDITIONING	ADD	$15

COMMUNITY ADJUSTMENTS:

CARLSBAD, NM.	-$36;	GRANTS, NM.	-$47;	TRUTH OR CONSEQUENCES, NM.	-$15;	SAYRE, OK.	-$124;
ALPINE, TX.	-$13;	MARFA, TX.	-$19;	PRESIDIO, TX.	-$61;		

* - IF BOTH THE EXTERIOR AND INTERIOR ARE IN THIS CONDITION, APPLY THIS FACTOR TWICE.

REGARDLESS OF ADJUSTMENTS, THE MINIMUM BASE RENT IS $140 PER MONTH.

THE APPROPRIATE CPI FACTOR SHOULD BE APPLIED AFTER COMPLETING THE ABOVE ADJUSTMENTS.

E. CABINS OR LOOKOUTS

For purposes of rental rate establishment, the rental housing class most comparable to cabins or lookouts would be 1-bedroom, single-family houses, regardless of the number of bedrooms in the cabin. One-bedroom, single-family rental houses generally consist of smaller and older housing units. Where the cabins or lookouts are outfitted for housekeeping, and contain an independent primary heating system, the rental rates (including all applicable adjustments) are determined by using the 1-bedroom house chart (i.e. Table 3d).

Where a cabin or lookout lacks full housekeeping facilities (including running water, an inside heated bathroom, or a central heating system), additional adjustments (shown below) must be made to the Monthly Base Rental Rate. A free standing stove without a fan, or a fireplace does not qualify as a central primary heating system. These adjustments are designed to take into consideration the inconvenience resulting from the lack of full housekeeping facilities. However, the adjusted monthly base rental rate may not be set below the minimum monthly base rent of $140.

. No Electricity =	- 20%
. No Inside Bathroom =	- 20%
. No Running Water =	- 20%
. No Central Heating System =	- 15% (*)
. Less Than Two Rooms (One-Room Cabin or Lookout) =	- 10%

(*) Applied only if used during the heating season.

F. BUNKHOUSE AND DORMITORIES

Bunkhouses and dormitories should only include housing units that have been specifically constructed or modified for use as bunkhouses or dormitories. Single-family houses, apartments or mobile homes that are **used** as dormitories or bunkhouses, must be valued as what they are (houses, apartments or mobile homes), with the rent divided by the number of **planned** occupants (normally 2 per bedroom).

Dormitory or bunkhouse units typically lack either a living room or kitchen, or have common baths and kitchens serving many people. Many also have multiple bunk beds in large ward-like rooms. Such housing units pose a valuation problem, as they are normally found only in association with institutions such as the military or colleges, of which its occupants are members. Since these institutions do not typically rent to the public at large, one cannot obtain an arms-length market rent.

Under circumstances where there is a lack of comparable rental data, OMB Circular A-45 provides that rental rates may be established using an extension of the Principle of Comparability. Under this procedure, rental rates are established using the most comparable rental housing available, and the rate is essentially 50 percent of the average house rent.

During the February, 1994 National Quarters Conference, the National Quarters Council decided that one aggregate monthly rate should be established for **all** dormitories in a survey region. This aggregate dormitory rate, which includes the value of Government-provided utilities, furnishings and services, was determined as follows.

An analysis of the comparables used in this survey found that the average single-family house had 1,214 square feet of finished floor space, 2.5 bedrooms and an average monthly adjusted contract rent of $550. By applying an extension of the Principle of Comparability, the Base Shelter Rental Rate (BSRR) for bunkhouses and dormitories is calculated as shown below.

Average adjusted contract rent x .5 = $550 x .5 = $275.00

$275.00 / (average # of bedrooms x 2 occupants per bedroom)
$275.00 / (2.5 bedrooms x 2 occupants) = $275.00 / 5 = $55.00 (rounded) per month/per occupant.

Charges were then added to this rate for utilities, services and furnishings that are provided by the Government. The aggregate value of these items was based on a study of the rates prevailing in the regional survey area. These charges were prorated based upon a 1,214 square foot, 2.5 bedroom, single-family house occupied by 2 people per bedroom. The aggregate charge for these related facilities is $47.60.

Monthly, weekly, and daily bunkhouse and dormitory rates are computed as follows.

TABLE 6 BUNKHOUSE/DORMITORY RENTS

New Mexico

Monthly Charge

Dormitory Rate $55.00
Related Facilities Charges $47.60

MBRR . . . . . $ 102.60

Bi-Weekly Charge

To convert to bi-weekly rate
multiply MBRR by .4615 and
round to nearest five cents $47.35

Weekly Charge

To convert to weekly rate
multiply MBRR by .2308 and
round to nearest five cents $23.70

Daily Charge

To convert to daily rate
multiply MBRR by .0333 and
round to nearest five cents . . . . . $ 3.40

Note: An administrative adjustment of -10% is permitted if 3 or more people must share a bedroom or sleeping area. Also, an administrative adjustment of -10% is permitted for dormitories that lack kitchen or cooking facilities.

G. TRANSIENT QUARTERS

Transient quarters are those which are occupied on a transient basis, normally for a period of 90 days or less. Government provided transient quarters offer a range of accommodations. At some locations kitchen facilities, private telephones and private bathrooms may be available; at others, they are not provided. At some locations, maid service is provided (with varying degrees of frequency); at other locations, employees are "issued" bedding and other domestic items, and must take care of their own house keeping arrangements.

Given the diversity of facilities and services associated with Government-provided transient quarters, the QMIS National Quarters Council determined that private housing, comparable to Government transient quarters, generally does not exist. Accordingly, the rental charges for transient quarters have been established by extending the principle of comparability, as provided in OMB Circular A-45.

Essentially, the rental charge for transient quarters is the sum of the monthly dormitory rate (see Table 6); a monthly charge for maid service (Table 18); and a 20 percent administrative/service charge required by OMB Circular A-45 paragraph 7.c(4)(a). Monthly, weekly and daily charges for transient quarters are shown, below, in Table 7.

TABLE 7 TRANSIENT QUARTERS RENTS

Dormitory BSRR	$55.00
Related Facilities Charges (Table 6)	47.60
Maid Service (Table 18)	65.65
Subtotal	$168.25
Administrative Charge (OMB Cir. A-45)	x 1.20
Total (Rounded)	$201.90
Monthly Charge (Rounded)	$201.90
Bi-Weekly Charge ($201.90 x .4615 Rounded)	$93.20
Weekly Charge ($201.90 x .2308 Rounded)	$46.60
Daily Charge ($201.90 x .0333 Rounded)	$6.70

H. TRAILER SPACES

During the course of the survey, trailer pads were surveyed in a wide variety of mobile home parks and varied widely in physical characteristics, utilities, rents, and geographical location.

A simplified analysis of this data was done. The value of related facilities in the contract rent was subtracted to arrive at an adjusted rent. After excluding extreme outliers, the average adjusted rent was determined for the remaining samples.

The average adjusted rent was then divided into the actual rent of each remaining sample. Those communities where the adjusted contract rents were significantly lower than the average rent for the region were given their typical adjusted rents. The rental rates of trailer pads in all other communities were established at the survey average rental level for the region.

During the February, 1993 National Quarters Conference, the National Quarters Officers of the agencies that participate in the Quarters Management Program agreed to assess the same monthly base rental rate (the rate for a single-wide space) for **all** GFQ trailer spaces. This is because most employees do not own/occupy double-wide mobile homes, and because the market differences are negligible.

To determine the trailer pad Monthly Base Rental Rate, use the applicable rate contained in Table 8. Do not use the rates in Table 8 if the trailer pad is occupied by a Government-owned or leased mobile home, as the land rent is already included in the base rent for all improved quarters.

If, as an example, the trailer pad is occupied by a tenant-owned mobile home located near Grants, NM, the base rent for this pad would be $60 per month. If, for another example, the trailer space is located near Santa Fe, NM, the base rental rate for this pad would be $136 (the "All Other Locations" charge). No other adjustments are made for physical characteristics such as the date the trailer pad was installed, the front or square footage, or the total number of sites at that location.

However, all appropriate administrative adjustments (such as amenity and isolation adjustments), as well as all charges for Government provided related facilities (such as utilities and furnishings) should be applied to the Monthly Base Rental Rates in Table 8 to determine the monthly net rental charge.

TABLE 8 TRAILER SPACES - MONTHLY BASE RENTAL RATES

COMMUNITIES	MONTHLY BASE RENTAL RATES
ARIZONA	
Holbrook, AZ	$69
Springerville, AZ	$103
Winslow, AZ	$128
NEW MEXICO	
Alamogordo, NM	$86
Bloomfield, NM	$117
Carlsbad, NM	$73
Grants, NM	$60
Roswell, NM	$114
Ruidoso, NM	$132
Silver City, NM	$131
Socorro, NM	$82
Truth or Consequences, NM	$95
OKLAHOMA	
Sayre, OK	$58
TEXAS	
Alpine, TX	$88
Del Rio, TX	$109
Marfa, TX	$110
ALL OTHER LOCATIONS	$136

I. OBSOLETE QUARTERS

OMB Circular A-45 revised October 20, 1993 excludes from the term rental quarters ". . . housing which due to extreme deterioration is unsuitable for occupancy except in exigent circumstances. . .." The net effect of this change means there will be no base rental rate for obsolete quarters. However, assessments will be made for utilities, furnishings, appliances and any other services that are provided by the Government.

The Department of the Interior Quarters Handbook (DQH), and the regulations of other QMIS program participants, provide that housing used as employee quarters must be safe, sanitary, and energy efficient. Where housing is in obsolete condition, it is by definition unfit for use as employee housing, and should be renovated, replaced, destroyed or used for non-residential purposes. Section 7.3A of the DQH also provides that the appropriate Program Assistant Secretary, or his/her designee (Bureau Head), may authorize temporary occupancy (for a period not to exceed one year), pending rehabilitation or replacement action where sufficient written justification is provided.

VI. CHARGES FOR UTILITIES, APPLIANCES AND RELATED SERVICES

A. BACKGROUND

OMB Circular A-45 requires that, whenever possible, utilities should be provided by a private company and billed directly to quarters occupants. Where Government-furnished utilities are provided, they should be metered or measured. When Government-furnished utilities are not metered or measured, consumption will be determined from an analysis of the average amounts of utilities used in comparable private housing in the nearest established community or survey area. **Where the Government furnishes utilities, and where the quarters rental rates are established by the regional survey method, the utility rates shall be the regional average utility rates prescribed in this report - <u>not</u> the rates prevailing in the nearest established community.**

The regional average utility rates contained in this report include all applicable delivery charges, adjustments, taxes and surcharges. Charges for Government-provided appliances, services and furnishings will be based upon nationwide average costs.

The following sections of this report detail the consumption and cost data to be used in the circumstances described above. The cost data in this report will be updated by the QMIS Program Office each year and distributed with the Consumer Price Index (CPI) adjustment that takes effect each year.

B. ENERGY CONSUMPTION STUDY

1. **General**. Energy consumption estimates are required where the Government furnishes the space heating or cooling fuel and the electricity, and where consumption is neither metered nor measured. In such instances, average energy consumption must be estimated and the Government must assess a charge based on private sector energy costs in the survey area.

No methodology for estimating energy consumption can exactly predict the amounts of energy needed to heat or cool specific dwellings. Precise consumption measurements are possible only when metering is used. However, the methodology used in this report will yield **reasonable** estimates of the heating and cooling energy consumption requirements of unmetered dwellings. The methodology employed in this section was contractor-developed. For this report, however, the contractor-provided tables and conversion charts have been reformatted, and the methodology has been restated to simplify the process of estimating energy consumption requirements. The unit costs for various fuel types and for electricity (e.g., the cost per gallon for fuel oil and propane; the cost per MCF (1,000 cubic feet) for natural gas; and the cost per KwH for electricity) are regional averages of the unit fuel/electricity prices gathered by the contractor in each community surveyed.

2. **Housing Prototypes**. For the New Mexico energy study, estimates of the heating and cooling energy requirements were prepared for each of the following six prototypical housing units.

Type I - Single family, one story, no basement

Type II - Single family, one story, full basement

Type III - Single family, two story, no basement

Type IV - Single family, two story, full basement

Type V - Apartment unit

Type VI - Mobile Home

3. **Assumptions**. For each of the housing prototypes, the following assumptions were made:

a. Location. - The housing is located in Albuquerque, NM.

b. R values. - Each housing type has the R values of insulation in floors, walls, and ceilings recommended in the HUD Minimum Property Standards (HUD-MPS) for the Albuquerque, NM area.

c. Occupants. - The housing contains an average compliment of occupants who are energy conscious (one person per 500 feet of floor space was assumed).

d. All measurements are of finished living space only and are based upon exterior dimensions.

e. Condition. - The housing is in good condition.

f. Building shape. - A rectangular shape with a ratio of 2:1 was established. This provides more building skin than a square configuration therefore, the rectangular shape yields a conservative estimate of skin loads.

g. Window area. - A window area of 10 percent of wall area was used to match UBC (Uniform Building Code) minimum window area standards.

h. Roof type. - A flat or pitched roof with ceiling insulation was assumed in all cases.

i. Air changes. - 1.5 air changes per hour was established as representing a conservative estimate of air changes in residential applications.

j. Perimeter loss. - Approximately 10 percent of overall building load is attributed to the slab on grade floors with rigid insulation to a value of R-6.

4. Using the above assumptions, infiltration factors developed by the Department of Energy, R values, building dimensions, and cooling and heating degree days, a contractor has formulated methodologies for estimating British Thermal Unit (BTU) and kilowatt hour (KwH) consumption rates, and costs, for heating and cooling. The relevant portions of the methodology are explained below.

C. SPACE HEATING (FOSSIL FUEL) CONSUMPTION/COST CALCULATIONS

To illustrate the procedure for calculating the cost of heating with fossil fuel, a single story 1,850 square foot house, with no basement, located near Gallup, NM will be used as an example.

1. The first step is to select from among Tables 9a through 9f, the table which most closely describes the quarters unit at issue. In this case, Table 9a is for a 1-story, single family house with a partial (50 percent or less) or no basement (Prototype I). When determining the prototype, use the total basement (finished and unfinished) square footage. Unfinished space is only considered when determining the prototype. It is never used when using a rent setting or consumption chart. Table 9a should be selected in this example.

2. The second step is to determine the number of BTU's consumed **annually** for heating the house used in this example. Select from Table 9a the annual MBTU (million BTU's) consumption appropriate for the heating degree days (HDD's) and the gross **finished** square footage of the house in this example. Use the table as shown below.

a. Find the number of HDD's for the established community near which the quarters is located. Table 10 contains the HDD's for the nearest established communities in the New Mexico survey region; this table shows that Gallup, NM has 6,161 HDD's. In Table 9a, 6,161 HDD's lies between the columns headed **"5,700"** and **"6,200."** Round 6,161 HDD's down to 5,700 HDD's.

b. In Table 9a, 1,850 square feet (the size of the house used in the example) lies between 1,800 and 2,000 square feet; round 1,850 down to 1,800 square feet.

c. From Table 9a (1,800 square feet and 5,700 HDD's) the annual MBTU consumption rate is 99.3 MBTU's.

3. The third step is to calculate the amount of fossil fuel needed to produce 99.3 MBTU's. Table 11 shows the amount of fossil fuel needed to produce 1 MBTU. The total amount of heating fuel required to produce 99.3 MBTU's is computed by multiplying the appropriate fuel factor in Table 11 by the number of MBTU's. In this case the fuel required is:

Natural gas:	99.3 MBTU's x 1 MCF	= 99.3 MCF
Propane:	99.3 MBTU's x 10.2 gallons	= 1,012.86 gallons
Fuel oil:	99.3 MBTU's x 7.04 gallons	= 699.07 gallons

4. The fourth step is to calculate the annual cost of the fuel consumed. This can be done by multiplying the annual fuel consumption by the unit fuel charges shown in Table 12. Following this procedure, the charge for fuel consumed annually to produce 99.3 MBTU's is:

Natural gas:	99.3 MCF x $8.36 (per MCF)	= $830.15
Propane:	1,012.86 gallons x $1.41(per gallon)	= $1,428.13
Fuel oil:	699.07 gallons x $1.59 (per gallon)	= $1,111.52

5. The fifth step is to calculate the monthly charge for fossil heating fuel. This is done simply by dividing the annual charges (above) by 12 (months). In this manner the monthly charges are: natural gas = $69.18; propane = $119.01 and fuel oil = $92.63.

6. The final step is to multiply the monthly charge (computed in step 5 above) by the appropriate HUD MPS Heating Zone conversion factor (Table 13). In order to use Table 13, it is first necessary to determine the HUD MPS Zone for the community at issue (Gallup, NM). Table 10 shows the HUD MPS Zones for the nearest established communities located within the New Mexico survey region. From Table 10, it can be seen that Gallup, NM is in MPS Zone 7. The conversion factor can now be found in Table 13. The conversion factor for a single story dwelling with no basement (Prototype I) in HUD MPS Zone 7 is .94. Multiply the monthly charges determined in step 5 above by .94 (the conversion factor). In this manner, the heating fuel charge can be computed for any quarters unit in any community or location. In this example, the final monthly fossil fuel heating costs are $65.03 ($69.18 x .94) for natural gas, $111.87 ($119.01 x .94) for propane and $87.07 ($92.63 x .94) for fuel oil.

The above example pertained to a single story dwelling with a partial (50 percent or less) or no basement. When calculating the heating fuel charge for a different type of housing (including apartments and mobile homes), use the Table (9a through f) which most closely describes the quarters unit to compute the annual MBTU consumption.

TABLE 9a ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE I
Single Family, One Story, Partial (Less Than 50%) or No Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	1.2	1.6	2.1	2.6	3.1	3.6	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.4	7.9	8.4	8.9
200	2.3	3.3	4.3	5.2	6.2	7.2	8.1	9.1	10.1	11.0	12.0	13.0	13.9	14.9	15.9	16.8	17.8
400	4.6	6.6	8.5	10.4	12.4	14.3	16.3	18.2	20.1	22.1	24.0	25.9	27.9	29.8	31.7	33.7	35.6
600	7.0	9.9	12.8	15.7	18.6	21.5	24.4	27.3	30.2	33.1	36.0	38.9	41.8	44.7	47.6	50.5	53.4
800	9.3	13.2	17.0	20.9	24.8	28.6	32.5	36.4	40.2	44.1	48.0	51.9	55.7	59.6	63.5	67.3	71.2
1000	11.6	16.4	21.3	26.1	31.0	35.8	40.6	45.5	50.3	55.1	60.0	64.8	69.7	74.5	79.3	84.2	89.0
1200	13.9	19.7	25.5	31.3	37.2	43.0	48.8	54.6	60.4	66.2	72.0	77.8	83.6	89.4	95.2	101.0	106.8
1400	16.3	23.0	29.8	36.6	43.3	50.1	56.9	63.7	70.4	77.2	84.0	90.8	97.5	104.3	111.1	117.8	124.6
1600	18.6	26.3	34.1	41.8	49.5	57.3	65.0	72.8	80.5	88.2	96.0	103.7	111.5	119.2	126.9	134.7	142.4
1800	20.9	29.6	38.3	47.0	55.7	64.4	73.1	81.9	90.6	99.3	108.0	116.7	125.4	134.1	142.8	151.5	160.2
2000	23.2	32.9	42.6	52.2	61.9	71.6	81.3	90.9	100.6	110.3	120.0	129.6	139.3	149.0	158.7	168.3	178.0
2200	25.5	36.2	46.8	57.5	68.1	78.8	89.4	100.0	110.7	121.3	132.0	142.6	153.3	163.9	174.5	185.2	195.8
2400	27.9	39.5	51.1	62.7	74.3	85.9	97.5	109.1	120.7	132.4	144.0	155.6	167.2	178.8	190.4	202.0	213.6
2600	30.2	42.8	55.3	67.9	80.5	93.1	105.7	118.2	130.8	143.4	156.0	168.5	181.1	193.7	206.3	218.8	231.4
2800	32.5	46.1	59.6	73.1	86.7	100.2	113.8	127.3	140.9	154.4	168.0	181.5	195.0	208.6	222.1	235.7	249.2
3000	34.8	49.3	63.9	78.4	92.9	107.4	121.9	136.4	150.9	165.4	180.0	194.5	209.0	223.5	238.0	252.5	267.0

TABLE 9b ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE II
Single Family, Single Story, Full Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	1.1	1.6	2.1	2.6	3.1	3.5	4.0	4.5	5.0	5.4	5.9	6.4	6.9	7.4	7.8	8.3	8.8
200	2.3	3.2	4.2	5.2	6.1	7.1	8.0	9.0	9.9	10.9	11.8	12.8	13.7	14.7	15.7	16.6	17.6
400	4.6	6.5	8.4	10.3	12.2	14.1	16.0	17.9	19.9	21.8	23.7	25.6	27.5	29.4	31.3	33.2	35.1
600	6.9	9.7	12.6	15.5	18.3	21.2	24.1	26.9	29.8	32.6	35.5	38.4	41.2	44.1	47.0	49.8	52.7
800	9.2	13.0	16.8	20.6	24.4	28.3	32.1	35.9	39.7	43.5	47.3	51.2	55.0	58.8	62.6	66.4	70.3
1000	11.5	16.2	21.0	25.8	30.5	35.3	40.1	44.9	49.6	54.4	59.2	64.0	68.7	73.5	78.3	83.1	87.8
1200	13.7	19.5	25.2	30.9	36.7	42.4	48.1	53.8	59.6	65.3	71.0	76.7	82.5	88.2	93.9	99.7	105.4
1400	16.0	22.7	29.4	36.1	42.8	49.4	56.1	62.8	69.5	76.2	82.9	89.5	96.2	102.9	109.6	116.3	123.0
1600	18.3	26.0	33.6	41.2	48.9	56.5	64.1	71.8	79.4	87.1	94.7	102.3	110.0	117.6	125.2	132.9	140.5
1800	20.6	29.2	37.8	46.4	55.0	63.6	72.2	80.8	89.4	97.9	106.5	115.1	123.7	132.3	140.9	149.5	158.1
2000	22.9	32.5	42.0	51.5	61.1	70.6	80.2	89.7	99.3	108.8	118.4	127.9	137.5	147.0	156.6	166.1	175.6
2200	25.2	35.7	46.2	56.7	67.2	77.7	88.2	98.7	109.2	119.7	130.2	140.7	151.2	161.7	172.2	182.7	193.2
2400	27.5	38.9	50.4	61.9	73.3	84.8	96.2	107.7	119.1	130.6	142.0	153.5	165.0	176.4	187.9	199.3	210.8
2600	29.8	42.2	54.6	67.0	79.4	91.8	104.2	116.7	129.1	141.5	153.9	166.3	178.7	191.1	203.5	215.9	228.3
2800	32.1	45.4	58.8	72.2	85.5	98.9	112.3	125.6	139.0	152.4	165.7	179.1	192.4	205.8	219.2	232.5	245.9
3000	34.4	48.7	63.0	77.3	91.6	106.0	120.3	134.6	148.9	163.2	177.6	191.9	206.2	220.5	234.8	249.2	263.5

TABLE 9c ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE III
Single Family, Two Story, Partial (Less Than 50%) or No Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	1.0	1.4	1.9	2.3	2.7	3.1	3.5	4.0	4.4	4.8	5.2	5.6	6.1	6.5	6.9	7.3	7.7
200	2.0	2.9	3.7	4.5	5.4	6.2	7.1	7.9	8.8	9.6	10.4	11.3	12.1	13.0	13.8	14.6	15.5
400	4.0	5.7	7.4	9.1	10.8	12.5	14.1	15.8	17.5	19.2	20.9	22.6	24.2	25.9	27.6	29.3	31.0
600	6.1	8.6	11.1	13.6	16.2	18.7	21.2	23.7	26.3	28.8	31.3	33.8	36.4	38.9	41.4	43.9	46.5
800	8.1	11.4	14.8	18.2	21.5	24.9	28.3	31.6	35.0	38.4	41.7	45.1	48.5	51.9	55.2	58.6	62.0
1000	10.1	14.3	18.5	22.7	26.9	31.1	35.4	39.6	43.8	48.0	52.2	56.4	60.6	64.8	69.0	73.2	77.4
1200	12.1	17.2	22.2	27.3	32.3	37.4	42.4	47.5	52.5	57.6	62.6	67.7	72.7	77.8	82.8	87.9	92.9
1400	14.1	20.0	25.9	31.8	37.7	43.6	49.5	55.4	61.3	67.2	73.1	79.0	84.8	90.7	96.6	102.5	108.4
1600	16.2	22.9	29.6	36.4	43.1	49.8	56.6	63.3	70.0	76.8	83.5	90.2	97.0	103.7	110.4	117.2	123.9
1800	18.2	25.8	33.3	40.9	48.5	56.1	63.6	71.2	78.8	86.4	93.9	101.5	109.1	116.7	124.2	131.8	139.4
2000	20.2	28.6	37.0	45.5	53.9	62.3	70.7	79.1	87.5	96.0	104.4	112.8	121.2	129.6	138.0	146.5	154.9
2200	22.2	31.5	40.7	50.0	59.3	68.5	77.8	87.0	96.3	105.6	114.8	124.1	133.3	142.6	151.8	161.1	170.4
2400	24.2	34.3	44.4	54.5	64.6	74.7	84.8	94.9	105.0	115.1	125.2	135.3	145.5	155.6	165.7	175.8	185.9
2600	26.3	37.2	48.1	59.1	70.0	81.0	91.9	102.9	113.8	124.7	135.7	146.6	157.6	168.5	179.5	190.4	201.3
2800	28.3	40.1	51.9	63.6	75.4	87.2	99.0	110.8	122.6	134.3	146.1	157.9	169.7	181.5	193.3	205.0	216.8
3000	30.3	42.9	55.6	68.2	80.8	93.4	106.1	118.7	131.3	143.9	156.6	169.2	181.8	194.4	207.1	219.7	232.3

TABLE 9d ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE IV
Single Family, Two Story, Full Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	0.9	1.3	1.7	2.0	2.4	2.8	3.2	3.6	3.9	4.3	4.7	5.1	5.4	5.8	6.2	6.6	7.0
200	1.8	2.6	3.3	4.1	4.8	5.6	6.4	7.1	7.9	8.6	9.4	10.1	10.9	11.7	12.4	13.2	13.9
400	3.6	5.1	6.7	8.2	9.7	11.2	12.7	14.2	15.7	17.3	18.8	20.3	21.8	23.3	24.8	26.3	27.9
600	5.4	7.7	10.0	12.3	14.5	16.8	19.1	21.3	23.6	25.9	28.2	30.4	32.7	35.0	37.2	39.5	41.8
800	7.3	10.3	13.3	16.3	19.4	22.4	25.4	28.5	31.5	34.5	37.5	40.6	43.6	46.6	49.6	52.7	55.7
1000	9.1	12.9	16.6	20.4	24.2	28.0	31.8	35.6	39.4	43.1	46.9	50.7	54.5	58.3	62.1	65.8	69.6
1200	10.9	15.4	20.0	24.5	29.1	33.6	38.1	42.7	47.2	51.8	56.3	60.8	65.4	69.9	74.5	79.0	83.6
1400	12.7	18.0	23.3	28.6	33.9	39.2	44.5	49.8	55.1	60.4	65.7	71.0	76.3	81.6	86.9	92.2	97.5
1600	14.5	20.6	26.6	32.7	38.7	44.8	50.9	56.9	63.0	69.0	75.1	81.1	87.2	93.2	99.3	105.3	111.4
1800	16.3	23.2	30.0	36.8	43.6	50.4	57.2	64.0	70.8	77.6	84.5	91.3	98.1	104.9	111.7	118.5	125.3
2000	18.2	25.7	33.3	40.9	48.4	56.0	63.6	71.1	78.7	86.3	93.8	101.4	109.0	116.5	124.1	131.7	139.3
2200	20.0	28.3	36.6	45.0	53.3	61.6	69.9	78.3	86.6	94.9	103.2	111.6	119.9	128.2	136.5	144.9	153.2
2400	21.8	30.9	40.0	49.0	58.1	67.2	76.3	85.4	94.4	103.5	112.6	121.7	130.8	139.9	148.9	158.0	167.1
2600	23.6	33.5	43.3	53.1	63.0	72.8	82.6	92.5	102.3	112.2	122.0	131.8	141.7	151.5	161.3	171.2	181.0
2800	25.4	36.0	46.6	57.2	67.8	78.4	89.0	99.6	110.2	120.8	131.4	142.0	152.6	163.2	173.8	184.4	195.0
3000	27.2	38.6	49.9	61.3	72.7	84.0	95.4	106.7	118.1	129.4	140.8	152.1	163.5	174.8	186.2	197.5	208.9

TABLE 9e ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE V
Apartments

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	0.7	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.2	5.5
200	1.4	2.0	2.6	3.2	3.8	4.4	5.0	5.6	6.2	6.8	7.4	8.0	8.6	9.2	9.8	10.4	11.0
400	2.9	4.1	5.3	6.5	7.7	8.9	10.1	11.3	12.5	13.7	14.9	16.1	17.3	18.5	19.7	20.9	22.1
600	4.3	6.1	7.9	9.7	11.5	13.3	15.1	16.9	18.7	20.5	22.3	24.1	25.9	27.7	29.5	31.3	33.1
800	5.8	8.2	10.6	13.0	15.4	17.8	20.2	22.6	25.0	27.4	29.8	32.2	34.6	37.0	39.4	41.7	44.1
1000	7.2	10.2	13.2	16.2	19.2	22.2	25.2	28.2	31.2	34.2	37.2	40.2	43.2	46.2	49.2	52.2	55.2
1200	8.6	12.2	15.8	19.4	23.0	26.6	30.2	33.8	37.4	41.0	44.6	48.2	51.8	55.4	59.0	62.6	66.2
1400	10.1	14.3	18.5	22.7	26.9	31.1	35.3	39.5	43.7	47.9	52.1	56.3	60.5	64.7	68.9	73.1	77.3
1600	11.5	16.3	21.1	25.9	30.7	35.5	40.3	45.1	49.9	54.7	59.5	64.3	69.1	73.9	78.7	83.5	88.3
1800	13.0	18.4	23.8	29.2	34.6	40.0	45.3	50.7	56.1	61.5	66.9	72.3	77.7	83.1	88.5	93.9	99.3
2000	14.4	20.4	26.4	32.4	38.4	44.4	50.4	56.4	62.4	68.4	74.4	80.4	86.4	92.4	98.4	104.4	110.4
2200	15.8	22.4	29.0	35.6	42.2	48.8	55.4	62.0	68.6	75.2	81.8	88.4	95.0	101.6	108.2	114.8	121.4
2400	17.3	24.5	31.7	38.9	46.1	53.3	60.5	67.7	74.9	82.1	89.3	96.5	103.7	110.9	118.1	125.2	132.4
2600	18.7	26.5	34.3	42.1	49.9	57.7	65.5	73.3	81.1	88.9	96.7	104.5	112.3	120.1	127.9	135.7	143.5
2800	20.2	28.6	37.0	45.3	53.7	62.1	70.5	78.9	87.3	95.7	104.1	112.5	120.9	129.3	137.7	146.1	154.5
3000	21.6	30.6	39.6	48.6	57.6	66.6	75.6	84.6	93.6	102.6	111.6	120.6	129.6	138.6	147.6	156.6	165.6

TABLE 9f ANNUAL MBTU USAGE (MILLIONS BTU'S) - PROTOTYPE VI
Mobile Homes

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating Degree Days																
	1200	1700	2200	2700	3200	3700	4200	4700	5200	5700	6200	6700	7200	7700	8200	8700	9200
100	1.8	2.6	3.3	4.1	4.8	5.6	6.3	7.1	7.8	8.6	9.3	10.1	10.8	11.6	12.3	13.1	13.9
200	3.6	5.1	6.6	8.1	9.6	11.1	12.7	14.2	15.7	17.2	18.7	20.2	21.7	23.2	24.7	26.2	27.7
400	7.2	10.2	13.3	16.3	19.3	22.3	25.3	28.3	31.3	34.3	37.4	40.4	43.4	46.4	49.4	52.4	55.4
600	10.8	15.4	19.9	24.4	28.9	33.4	38.0	42.5	47.0	51.5	56.0	60.5	65.1	69.6	74.1	78.6	83.1
800	14.5	20.5	26.5	32.5	38.6	44.6	50.6	56.6	62.7	68.7	74.7	80.7	86.7	92.8	98.8	104.8	110.8
1000	18.1	25.6	33.1	40.7	48.2	55.7	63.3	70.8	78.3	85.8	93.4	100.9	108.4	116.0	123.5	131.0	138.6
1200	21.7	30.7	39.8	48.8	57.8	66.9	75.9	84.9	94.0	103.0	112.1	121.1	130.1	139.2	148.2	157.2	166.3
1400	25.3	35.8	46.4	56.9	67.5	78.0	88.6	99.1	109.6	120.2	130.7	141.3	151.8	162.4	172.9	183.4	194.0
1600	28.9	41.0	53.0	65.1	77.1	89.2	101.2	113.3	125.3	137.4	149.4	161.5	173.5	185.5	197.6	209.6	221.7
1800	32.5	46.1	59.6	73.2	86.7	100.3	113.9	127.4	141.0	154.5	168.1	181.6	195.2	208.7	222.3	235.9	249.4
2000	36.1	51.2	66.3	81.3	96.4	111.4	126.5	141.6	156.6	171.7	186.8	201.8	216.9	231.9	247.0	262.1	277.1
2200	39.8	56.3	72.9	89.5	106.0	122.6	139.2	155.7	172.3	188.9	205.4	222.0	238.6	255.1	271.7	288.3	304.8
2400	43.4	61.4	79.5	97.6	115.7	133.7	151.8	169.9	188.0	206.0	224.1	242.2	260.2	278.3	296.4	314.5	332.5
2600	47.0	66.6	86.1	105.7	125.3	144.9	164.5	184.0	203.6	223.2	242.8	262.4	281.9	301.5	321.1	340.7	360.3
2800	50.6	71.7	92.8	113.9	134.9	156.0	177.1	198.2	219.3	240.4	261.5	282.5	303.6	324.7	345.8	366.9	388.0
3000	54.2	76.8	99.4	122.0	144.6	167.2	189.8	212.4	234.9	257.5	280.1	302.7	325.3	347.9	370.5	393.1	415.7

TABLE 10 HEATING/COOLING DEGREE DAYS AND MPS ZONES

Community	Heating Degree Days	Cooling Degree Days	HUD MPS Zone
ARIZONA			
Flagstaff, AZ	7,254	127	7
Holbrook, AZ	4,987	1,013	6
Page, AZ	4,553	905	7
Springerville, AZ	6,337	176	6
Winslow, AZ	4,839	1,187	6
COLORADO			
Alamosa, CO	8,717	69	8
Cortez, CO	6,350	473	7
NEW MEXICO			
Alamogordo, NM	3,059	1,756	3
Albuquerque, NM	4,414	1,254	5
Anthony, NM	2,755	2,097	3
Aztec, NM	5,732	738	7
Belen, NM	4,414	1,254	7
Bloomfield, NM	5,377	935	7
Carlsbad, NM	2,833	2,155	3
Deming, NM	2,949	1,812	4
Espanola, NM	6,387	297	8
Farmington, NM	5,377	935	7
Gallup, NM	6,161	416	7
Grants, NM	5,046	772	7
Las Cruces, NM	2,755	2,097	3
Las Vegas, NM	6,063	287	6
Lordsburg, NM	3,253	1,744	4
Los Alamos, NM	6,387	297	7
Raton, NM	7,557	52	6
Roswell, NM	3,126	1,863	5
Ruidoso, NM	6,241	126	7
Santa Fe, NM	6,387	297	7

TABLE 10 HEATING/COOLING DEGREE DAYS AND MPS ZONES

Community	Heating Degree Days	Cooling Degree Days	HUD MPS Zone
NEW MEXICO			
Silver City, NM	3,253	1,744	4
Socorro, NM	4,104	1,175	4
Taos, NM	9,298	8	8
Truth or Consequences, NM	3,404	1,523	4
Tularosa, NM	3,059	1,756	3
OKLAHOMA			
Sayre, OK	3,649	1,899	3
Woodward, OK	3,900	1,864	3
TEXAS			
Alpine, TX	2,565	1,546	2
Amarillo, TX	4,258	1,354	3
Big Spring, TX	2,772	2,160	3
Canyon, TX	3,715	1,449	3
Del Rio, TX	1,510	3,272	2
El Paso, TX	2,708	2,094	3
Fabens, TX	2,802	1,936	3
Marble Falls, TX	2,500	2,365	2
Marfa, TX	2,565	1,546	2
Muleshoe, TX	4,184	1,272	2
Presidio, TX	1,564	3,405	2
Rio Grande City, TX	975	3,884	2
Roma, TX	975	3,884	2
Ulvalde, TX	1,557	3,028	2

TABLE 11 FUEL REQUIRED TO PRODUCE 1 MBTU

Type of Fuel	Amount Needed To Produce 1 MBTU
Natural Gas	1 MCF (1,000 cu. ft.)
Propane	10.2 Gallons
Fuel Oil	7.04 Gallons

TABLE 12 HEATING FUEL COST

Type of Fuel	Charge per unit
Natural Gas	$8.36
Propane	$1.41
Fuel Oil #2	$1.59

TABLE 13 MPS HEATING ZONE CONVERSION FACTORS

	Dwelling Prototypes					
	I	II	III	IV	V	VI
HUD MPS Heating Zone	Single Story No Basement	Single Story Full Basement	Double Story No Basement	Double Story Full Basement	Apart-ments	Mobile Homes
1						
2	1.03	1.03	1.03	1.02	1.04	1.03
3	.97	.98	.97	.98	.96	.97
4	.97	.97	.97	.98	.96	.97
5	1.00	1.00	1.00	1.00	1.00	1.00
6	.94	.94	.93	.95	.90	.93
7	.94	.94	.94	.95	.90	.93
8	.80	.80	.77	.83	.69	.78

D. SPACE HEATING (ELECTRICITY) CONSUMPTION/COST CALCULATIONS

The procedure for calculating electrical consumption and costs for space heating (where electricity is unmetered or otherwise unmeasured) is similar to the procedure used for fossil fuels. Tables 14a through 14f are used.

1. Select from these tables the dwelling prototype most similar to the quarters at issue.

2. Determine the annual kilowatt hour (KwH) consumption by finding the appropriate columns for square feet and HDD (heating degree days). Note: HDD's for the nearest established communities may be found in Table 10.

3. Divide the annual KwH by 12 to determine the monthly average electrical consumption.

4. Adjust for HUD MPS Heating Zone, using the conversion factors in Table 13.

5. Adjust for heat pump (if applicable).

6. Determine the appropriate charge per KwH from the table below. **Do not calculate the total cost of electricity in steps such as the first 500 KwH costs so much, then the second 500 KwH costs so much etc.**

KwH Consumed Per Month	Charge per KwH
1 -500	$.099
501 - 1,000	$.093
1,001 -1,500	$.092
Over - 1,500	$.091

7. Compute the monthly charge for space heating by multiplying the appropriate charge per KwH times the number of KwH consumed per month.

8. Example: The average monthly electric heating charge for a single family, 2,100 square foot, two story, no basement home located near Farmington, NM is computed as follows:

a. Step 1. Select the table (table 14a through f) which most closely describes the quarters unit at issue. In this case, table 14c (single family, two story, no basement - prototype III) should be selected.

b. Step 2. Determine from table 14c the annual KwH consumption appropriate for the heating degree days (HDD) and the gross square footage of the house in this example. Use the table as follows:

(1) Find the number of heating degree days for the established community in which the quarters is located. Table 10 (which contains the HDD for established communities in the New Mexico survey region) shows that Farmington, NM, has 5,377 HDD. In table 14c, the number of HDD's in Farmington, NM, (5,377) lies between the column headed 5,000 and the column headed 5,700. Round down to 5,000 HDD.

(2) In table 14c, 2,100 square feet (the size of the house used in this example) lies between 2,000 and 2,200 square feet. Round 2,100 down to 2,000 square feet.

(3) From table 14c (2,000 square feet and 5,000 HDD) the annual KwH consumption rate is 19,730 KwH.

c. Step 3. Calculate the monthly KwH consumption by dividing the annual KwH by 12 (months). In this instance, the monthly consumption is 1,644.17 KwH (19,730 / 12 = 1,644.17).

d. Step 4, Hud MPS Zone adjustment. The HUD MPS zone adjustment is made as follows:

1) Use Table 10 to find the HUD MPS zone for the community at issue. In this manner, Farmington, NM, is found to be in HUD MPS zone 7.

2) In Table 13, determine the adjustment factor for the appropriate dwelling type and MPS zone. The factor for housing prototype III in HUD MPS zone 7 is .94.

3) Multiply the monthly electric consumption (as computed in paragraph 8c, above) times the HUD MPS adjustment factor (1,644.17 x .94 = 1,545.52 KwH per month).

e. Step 5, **Adjustment for heat pump**. The process described above is used for computing the electrical consumption for heating with a straight resistance heating system. Where a dwelling is heated with an electric heat pump, the straight resistance heating consumption (1,545.52 KwH in this example) should be multiplied by a factor of .75 which represents the greater efficiency of the heat pump. In this example, the monthly electric consumption for a heat pump as the heating source would be 1,159.14 (1,545.52 x .75 = 1,159.14).

f. Step 6. The final step is to compute the monthly charge for the electricity consumed. This is done by multiplying the charge per KwH times the KwH consumed per month. The appropriate charge per KwH may be found in the table below.

KwH Consumed Per Month	Charge per KwH
1 -500	$.099
501 - 1,000	$.093
1,001 -1,500	$.092
Over - 1,500	$.091

In this example, the average monthly consumption (1,545.52 KwH) for resistance heat falls in the "Over - 1500" KwH per month consumption category; the appropriate charge is $0.091 per KwH. The average monthly consumption (1,159.14 KwH) for a heat pump falls in the "1,001 - 1500" KwH per month consumption category; and the appropriate unit charge is $0.092 per KwH.

Therefore, the monthly electric heating charge for the house used in this example is computed as follows:

Resistance heat: 1,545.52 KwH x $.091 = $ 140.64

Heatpump: 1,159.14 KwH x $.092 = $ 106.64

E. SPACE COOLING CONSUMPTION/COST

Space cooling costs are calculated in the same manner as for electric space heating except that CDD (Cooling Degree Day) values are used in lieu of HDD values. CDD values for the Nearest Established Communities are found in Table 10. Additionally, only Tables 14a through 14f are used in calculating cooling energy consumption. Briefly, the steps are as follows.

1. Select from Tables 14a through 14f, the table that most closely describes the quarters unit at issue.

2. Based on the size of the dwelling (square feet) and the number of CDD (from Table 10), use the appropriate Table (14a-f) to determine the annual KwH consumption.

3. Divide the annual KwH consumption by 12 (months) to determine the average number of KwH consumed per month.

4. Apply the HUD MPS Zone adjustment factor.

5. Apply the Coefficient of Performance (COP) adjustment.

6. Determine the appropriate charge per KwH from the table below.

KwH Consumed Per Month	Charge per KwH
1 -500	$.099
501 - 1,000	$.093
1,001 -1,500	$.092
Over - 1,500	$.091

7. Compute the monthly charge for space cooling by multiplying the appropriate charge per KwH times the number of KwH consumed per month.

8. Example : Compute the average monthly electric cooling charge for a 1,275 SQFT mobile home near Winslow, AZ.

a. STEP 1: Table Selection. Select the table (table 14a through 14f) which most closely describes the quarters unit at issue. Table 14f (Mobile Home - prototype VI) should be selected.

b. STEP 2: Annual KwH Consumption. Determine from table 14f the annual KwH consumption appropriate for the cooling degree days (CDD) and the gross square footage of the mobile home in this example. Use the table as follows:

(1) Find the number of cooling degree days for the established community closest to the quarters. Table 10 (which contains the CDD for established communities in the New Mexico survey region) shows that Winslow, AZ has 1,187 CDD. In table 14f, 1,187 CDD lies between the columns headed 1,000 and 1,500. Round down to 1,000 CDD.

(2) In table 14f, 1,275 square feet (the size of the mobile home used in this example) lies between 1,200 and 1,400 square feet. Round down to 1,200 square feet.

(3) From table 14f (1,200 square feet and 1,000 CDD) the annual KwH consumption rate is 4,236 KwH.

c. STEP 3: Monthly Consumption. Calculate the monthly KwH consumption by dividing the annual KwH consumption by 12 (months). In this instance, the monthly consumption is 353 KwH rounded (4,236 / 12 = 353).

d. STEP 4: HUD MPS Zone Adjustment. The HUD MPS Zone adjustment is made as follows:

(1) Use Table 10 to find the HUD MPS zone for the community at issue. In this manner, Winslow is found to be in HUD MPS Zone 6.

(2) In Table 15, determine the adjustment factor for the appropriate dwelling unit type and MPS zone. The factor for housing prototype VI in HUD MPS zone 6 is 1.20.

(3) Multiply the monthly electric consumption (as computed in paragraph 8c, above) times the HUD MPS Zone adjustment factor 353 x 1.20 = 423.60 KwH per month.

e. STEP 5: Adjustment for Coefficient of Performance (COP). This adjustment accounts for the differences in the efficiencies of evaporative (swamp) and refrigerated air central cooling systems.

(1) Evaporative (swamp) cooling. For a central evaporative cooling system the adjusted KwH (computed in Step 4, above) is divided by a factor of 6.66. In this example, the monthly KwH requirement for central evaporative cooling is computed as 423.60 / 6.66 = 63.60 KwH per month.

(2) Refrigerated air cooling. For a central refrigerated air cooling system, the adjusted KwH (computed in step 4, above) is divided by a factor of 2. In this example, the monthly KwH requirement for central refrigerated air cooling is computed as 423.60 / 2 = 211.80 KwH per month.

f. STEP 6: Monthly Charge. The final step is to compute the monthly charge for the electricity consumed. This is done by multiplying the charge per KwH times the KwH consumed per month. The appropriate charge per KwH may be found in the table below.

Kwk Consumed Per Month	Charge per KwH
1 -500	$.099
501 - 1,000	$.093
1,001 -1,500	$.092
Over - 1,500	$.091

In this example, the average monthly consumption (63.60 KwH) for evaporative cooling falls in the 1 to 500 Kwh consumption range. And (211.80 KwH) for refrigerated cooling falls in the 1 to 500 KwH consumption range. The appropriate charge will be $0.099 per KwH for evaporative cooling and $.099 for refrigerated cooling.

Therefore, the monthly charges for cooling the mobile home used in this example would be computed as follows.

Evaporative cooling : 63.60 KwH x $0.099 = $6.30

Refrigerated cooling: 211.80 KwH x $0.099 = $20.97

9. Gas powered Central Air Conditioning Units. If the central air conditioning unit is gas operated (natural gas or propane), the charge is computed as follows:

a. Compute the KwH consumption in same manner as shown in steps 1 through 4 above (Note: the calculations through step 4 produce 423.60 KwH per month).

b. Calculate the Coefficient of Performance (COP) adjustment in step 5 above for refrigerated air conditioning; that is, divide the number of KwH in paragraph 9a, above (423.60 KwH) by the COP (2); for example 423.60 / 2 = 211.80 KwH.

c. Convert the monthly KwH to MBTU's by dividing the KwH calculated in paragraph 9b, above by 234.4. Thus, 211.80 KwH / 234.4 (KwH per MBTU) = .90 MBTU's. [It takes 234.4 Kilowatts to generate 1 MBTU]

d. Calculate the volumes of natural gas and propane needed to produce .90 MBTU's. This is done as follows.

1) Natural Gas. For central air conditioning units that operate on natural gas, multiply the MBTU's calculated in paragraph 9c above by 1 MCF (.90 MBTU's x 1 MCF = .90 MCF). Thus, .90 MCF of natural gas would be required per month (annual average) to cool the dwelling in this example.

2) Propane. For central air conditioning units that operate on propane gas, multiply the MBTU's calculated in paragraph 9c above by 10.2 gallons (.90 MBTU's x 10.2 gallons = 9.18 gallons). Thus, 9.18 gallons of propane would be required per month (annual average) to cool the dwelling in this example.

e. Calculate the monthly charge for natural gas or propane consumed. This is done by multiplying the volume of fuel consumed by the unit cost of the fuel. These calculations are shown below.

Natural gas: .90 MCF x $8.36 per MCF = $7.52 (rounded) per month.

Propane gas: 9.18 gallons x $1.41 per gallon = $12.94 (rounded) per month.

TABLE 14a ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE I
Single Family, One Story, Partial (Less Than 50%) or No Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	23	68	113	227	340	454	567	680	816	975	1134	1293	1451	1610	1769	1928	2086
200	45	136	227	454	680	907	1134	1361	1633	1950	2268	2585	2903	3220	3538	3855	4173
400	91	272	454	907	1361	1814	2268	2721	3266	3901	4536	5171	5806	6441	7076	7711	8346
600	136	408	680	1361	2041	2721	3402	4082	4898	5851	6803	7756	8708	9661	10613	11566	12518
800	181	544	907	1814	2721	3628	4536	5443	6531	7801	9071	10341	11611	12881	14151	15421	16691
1000	227	680	1134	2268	3402	4536	5669	6803	8164	9752	11339	12926	14514	16101	17689	19276	20864
1200	272	816	1361	2721	4082	5443	6803	8164	9797	11702	13607	15512	17417	19322	21227	23132	25037
1400	317	952	1587	3175	4762	6350	7937	9525	11430	13652	15875	18097	20319	22542	24764	26987	29209
1600	363	1089	1814	3628	5443	7257	9071	10885	13063	15602	18142	20682	23222	25762	28302	30842	33382
1800	408	1225	2041	4082	6123	8164	10205	12246	14695	17553	20410	23268	26125	28982	31840	34697	37555
2000	454	1361	2268	4536	6803	9071	11339	13607	16328	19503	22678	25853	29028	32203	35378	38553	41728
2200	499	1497	2495	4989	7484	9978	12473	14967	17961	21453	24946	28438	31931	35423	38915	42408	45900
2400	544	1633	2721	5443	8164	10885	13607	16328	19594	23404	27214	31023	34833	38643	42453	46263	50073
2600	590	1769	2948	5896	8844	11793	14741	17689	21227	25354	29481	33609	37736	41864	45991	50118	54246
2800	635	1905	3175	6350	9525	12700	15875	19050	22859	27304	31749	36194	40639	45084	49529	53974	58419
3000	680	2041	3402	6803	10205	13607	17008	20410	24492	29255	34017	38779	43542	48304	53067	57829	62591

TABLE 14b ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE II
Single Family, Single Story, Full Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	22	67	112	224	336	448	559	671	806	962	1119	1275	1432	1589	1745	1902	2059
200	45	134	224	448	671	895	1119	1343	1611	1924	2238	2551	2864	3177	3491	3804	4117
400	90	269	448	895	1343	1790	2238	2685	3222	3849	4475	5102	5728	6355	6981	7608	8234
600	134	403	671	1343	2014	2685	3356	4028	4833	5773	6713	7652	8592	9532	10472	11412	12351
800	179	537	895	1790	2685	3580	4475	5370	6444	7697	8950	10203	11456	12709	13962	15215	16468
1000	224	671	1119	2238	3356	4475	5594	6713	8055	9622	11188	12754	14320	15887	17453	19019	20586
1200	269	806	1343	2685	4028	5370	6713	8055	9666	11546	13425	15305	17184	19064	20944	22823	24703
1400	313	940	1566	3133	4699	6265	7831	9398	11277	13470	15663	17856	20049	22241	24434	26627	28820
1600	358	1074	1790	3580	5370	7160	8950	10740	12888	15394	17900	20407	22913	25419	27925	30431	32937
1800	403	1208	2014	4028	6041	8055	10069	12083	14499	17319	20138	22957	25777	28596	31415	34235	37054
2000	448	1343	2238	4475	6713	8950	11188	13425	16110	19243	22376	25508	28641	31773	34906	38039	41171
2200	492	1477	2461	4923	7384	9845	12307	14768	17721	21167	24613	28059	31505	34951	38397	41842	45288
2400	537	1611	2685	5370	8055	10740	13425	16110	19333	23092	26851	30610	34369	38128	41887	45646	49405
2600	582	1745	2909	5818	8726	11635	14544	17453	20944	25016	29088	33161	37233	41305	45378	49450	53522
2800	627	1880	3133	6265	9398	12530	15663	18796	22555	26940	31326	35711	40097	44483	48868	53254	57640
3000	671	2014	3356	6713	10069	13425	16782	20138	24166	28865	33563	38262	42961	47660	52359	57058	61757

TABLE 14c ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE III
Single Family, Two Story, Partial (Less Than 50%) or No Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	20	59	99	197	296	395	493	592	710	848	986	1125	1263	1401	1539	1677	1815
200	39	118	197	395	592	789	986	1184	1421	1697	1973	2249	2525	2802	3078	3354	3630
400	79	237	395	789	1184	1578	1973	2368	2841	3394	3946	4498	5051	5603	6156	6708	7261
600	118	355	592	1184	1776	2368	2959	3551	4262	5090	5919	6748	7576	8405	9234	10062	10891
800	158	474	789	1578	2368	3157	3946	4735	5682	6787	7892	8997	10102	11207	12311	13416	14521
1000	197	592	986	1973	2959	3946	4932	5919	7103	8484	9865	11246	12627	14008	15389	16770	18151
1200	237	710	1184	2368	3551	4735	5919	7103	8523	10181	11838	13495	15153	16810	18467	20124	21782
1400	276	829	1381	2762	4143	5524	6905	8287	9944	11877	13811	15744	17678	19611	21545	23479	25412
1600	316	947	1578	3157	4735	6314	7892	9470	11364	13574	15784	17994	20203	22413	24623	26833	29042
1800	355	1065	1776	3551	5327	7103	8878	10654	12785	15271	17757	20243	22729	25215	27701	30187	32673
2000	395	1184	1973	3946	5919	7892	9865	11838	14205	16968	19730	22492	25254	28016	30779	33541	36303
2200	434	1302	2170	4341	6511	8681	10851	13022	15626	18664	21703	24741	27780	30818	33856	36895	39933
2400	474	1421	2368	4735	7103	9470	11838	14205	17047	20361	23676	26990	30305	33620	36934	40249	43564
2600	513	1539	2565	5130	7695	10260	12824	15389	18467	22058	25649	29240	32830	36421	40012	43603	47194
2800	552	1657	2762	5524	8287	11049	13811	16573	19888	23755	27622	31489	35356	39223	43090	46957	50824
3000	592	1776	2959	5919	8878	11838	14797	17757	21308	25452	29595	33738	37881	42025	46168	50311	54454

TABLE 14d ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE IV
Single Family, Two Story, Full Basement

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	18	53	89	177	266	355	443	532	639	763	887	1011	1135	1259	1384	1508	1632
200	35	106	177	355	532	710	887	1064	1277	1526	1774	2022	2271	2519	2767	3016	3264
400	71	213	355	710	1064	1419	1774	2129	2554	3051	3548	4045	4541	5038	5535	6031	6528
600	106	319	532	1064	1597	2129	2661	3193	3832	4577	5322	6067	6812	7557	8302	9047	9792
800	142	426	710	1419	2129	2838	3548	4257	5109	6102	7096	8089	9082	10076	11069	12063	13056
1000	177	532	887	1774	2661	3548	4435	5322	6386	7628	8870	10111	11353	12595	13837	15078	16320
1200	213	639	1064	2129	3193	4257	5322	6386	7663	9153	10644	12134	13624	15114	16604	18094	19584
1400	248	745	1242	2483	3725	4967	6209	7450	8941	10679	12417	14156	15894	17633	19371	21110	22848
1600	284	851	1419	2838	4257	5677	7096	8515	10218	12205	14191	16178	18165	20152	22139	24125	26112
1800	319	958	1597	3193	4790	6386	7983	9579	11495	13730	15965	18200	20436	22671	24906	27141	29376
2000	355	1064	1774	3548	5322	7096	8870	10644	12772	15256	17739	20223	22706	25190	27673	30157	32640
2200	390	1171	1951	3903	5854	7805	9757	11708	14049	16781	19513	22245	24977	27709	30441	33172	35904
2400	426	1277	2129	4257	6386	8515	10644	12772	15327	18307	21287	24267	27247	30228	33208	36188	39168
2600	461	1384	2306	4612	6918	9224	11531	13837	16604	19832	23061	26290	29518	32747	35975	39204	42432
2800	497	1490	2483	4967	7450	9934	12417	14901	17881	21358	24835	28312	31789	35266	38742	42219	45696
3000	532	1597	2661	5322	7983	10644	13304	15965	19158	22884	26609	30334	34059	37785	41510	45235	48960

TABLE 14e ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE V
Apartments

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	14	42	70	141	211	281	352	422	506	605	703	801	900	998	1097	1195	1294
200	28	84	141	281	422	562	703	844	1012	1209	1406	1603	1800	1997	2193	2390	2587
400	56	169	281	562	844	1125	1406	1687	2025	2418	2812	3206	3599	3993	4387	4781	5174
600	84	253	422	844	1265	1687	2109	2531	3037	3628	4218	4809	5399	5990	6580	7171	7761
800	112	337	562	1125	1687	2250	2812	3374	4049	4837	5624	6412	7199	7986	8774	9561	10348
1000	141	422	703	1406	2109	2812	3515	4218	5062	6046	7030	8014	8999	9983	10967	11951	12936
1200	169	506	844	1687	2531	3374	4218	5062	6074	7255	8436	9617	10798	11979	13160	14342	15523
1400	197	591	984	1968	2953	3937	4921	5905	7086	8464	9842	11220	12598	13976	15354	16732	18110
1600	225	675	1125	2250	3374	4499	5624	6749	8099	9674	11248	12823	14398	15973	17547	19122	20697
1800	253	759	1265	2531	3796	5062	6327	7593	9111	10883	12654	14426	16198	17969	19741	21512	23284
2000	281	844	1406	2812	4218	5624	7030	8436	10123	12092	14060	16029	17997	19966	21934	23903	25871
2200	309	928	1547	3093	4640	6187	7733	9280	11136	13301	15466	17632	19797	21962	24128	26293	28458
2400	337	1012	1687	3374	5062	6749	8436	10123	12148	14510	16872	19235	21597	23959	26321	28683	31045
2600	366	1097	1828	3656	5484	7311	9139	10967	13160	15719	18278	20837	23396	25955	28514	31073	33632
2800	394	1181	1968	3937	5905	7874	9842	11811	14173	16929	19685	22440	25196	27952	30708	33464	36219
3000	422	1265	2109	4218	6327	8436	10545	12654	15185	18138	21091	24043	26996	29949	32901	35854	38807

TABLE 14f ANNUAL KwH USAGE (ELECTRIC HEATING/COOLING) - TYPE VI
Mobile Homes

BASELINE CITY, Albuquerque, New Mexico

Gross Square Feet	Heating or Cooling Degree Days																
	100	300	500	1000	1500	2000	2500	3000	3600	4300	5000	5700	6400	7100	7800	8500	9200
100	35	106	177	353	530	706	883	1059	1271	1518	1765	2012	2259	2506	2754	3001	3248
200	71	212	353	706	1059	1412	1765	2118	2542	3036	3530	4024	4519	5013	5507	6001	6496
400	141	424	706	1412	2118	2824	3530	4236	5083	6072	7060	8049	9037	10026	11014	12003	12991
600	212	635	1059	2118	3177	4236	5295	6354	7625	9108	10591	12073	13556	15039	16521	18004	19487
800	282	847	1412	2824	4236	5648	7060	8472	10167	12144	14121	16098	18075	20052	22028	24005	25982
1000	353	1059	1765	3530	5295	7060	8826	10591	12709	15180	17651	20122	22593	25064	27536	30007	32478
1200	424	1271	2118	4236	6354	8472	10591	12709	15250	18216	21181	24147	27112	30077	33043	36008	38973
1400	494	1483	2471	4942	7413	9885	12356	14827	17792	21252	24711	28171	31631	35090	38550	42009	45469
1600	565	1694	2824	5648	8472	11297	14121	16945	20334	24288	28242	32195	36149	40103	44057	48011	51965
1800	635	1906	3177	6354	9532	12709	15886	19063	22876	27324	31772	36220	40668	45116	49564	54012	58460
2000	706	2118	3530	7060	10591	14121	17651	21181	25417	30360	35302	40244	45187	50129	55071	60014	64956
2200	777	2330	3883	7766	11650	15533	19416	23299	27959	33396	38832	44269	49705	55142	60578	66015	71451
2400	847	2542	4236	8472	12709	16945	21181	25417	30501	36432	42362	48293	54224	60155	66085	72016	77947
2600	918	2754	4589	9179	13768	18357	22946	27536	33043	39468	45893	52318	58743	65168	71593	78018	84443
2800	988	2965	4942	9885	14827	19769	24711	29654	35584	42504	49423	56342	63261	70181	77100	84019	90938
3000	1059	3177	5295	10591	15886	21181	26477	31772	38126	45540	52953	60367	67780	75193	82607	90020	97434

TABLE 15 MPS COOLING ZONE CONVERSION FACTORS

	Dwelling Prototypes					
	I	II	III	IV	V	VI
HUD MPS Heating Zone	Single Story No Basement	Single Story Full Basement	Double Story No Basement	Double Story Full Basement	Apart-ments	Mobile Homes
1						
2	1.69	1.72	1.80	1.57	2.15	1.85
3	1.36	1.30	1.31	1.21	1.48	1.37
4	1.27	1.30	1.31	1.21	1.48	1.37
5	1.44	1.47	1.51	1.36	1.76	1.57
6	1.12	1.15	1.14	1.09	1.24	1.20
7	1.12	1.15	1.14	1.09	1.24	1.20
8	.85	.88	.84	.86	.82	.89

F. NON-SPACE HEATING/COOLING ENERGY CONSUMPTION/COST

The examples in the preceding sections (VI.C, VI.D and VI.E) dealt with the charges for space heating and cooling. However, to compute **total** energy consumption charges, the costs for energy consumed by lights, equipment, and appliances (Government **and** tenant owned) must be determined and added to the heating and cooling charges.

1. **Consumption**. Electric non-space heating/cooling consumption and cost estimates include electricity used by small appliances, lights, radios, television, refrigerators, ranges, washers, dryers, etc. These items, and their associated consumption levels, are shown in Table 16.

To use Table 16, first, determine the finished floor space square footage range within which a specific quarters unit falls. Then, using the values in Table 16, add the KwH consumed by each appliance or equipment item which is present in the quarters unit. If a housing unit has more than one (1) refrigerator, freezer, room (window) air conditioner, or space heater, multiply the KwH shown in the table times the number of refrigerators, freezers, room air conditioners, or space heaters that are present in the quarters unit to determine the total monthly KwH consumption for these appliances.

There may be instances where appliances are fueled by fossil fuels rather than by electricity. Table 16a provides monthly consumption (in MCF or gallons of fuel) for the most common of these.

If an appliance listed in Table 16 or Table 16a is not present in the quarters unit at issue, do not include its monthly energy consumption when computing the total energy consumed by equipment and appliances.

2. **Cost**. The cost of electricity or fossil fuel consumed by appliances and equipment is easily computed by multiplying the total monthly consumption (as determined in the preceding paragraphs) times the appropriate charge per KwH, MCF or gallon. These unit charges are shown in Table 17.

TABLE 16 MONTHLY KwH USAGE: APPLIANCE AND EQUIPMENT

Appliance / Equipment	Gross Square Feet of Living Space									
	Under 301	301-500	501-700	701-1,100	1,101-1,300	1,301-1,500	1,501-1,900	1,901-2,100	2,101-2,500	Over 2,500
Hot water heater	130	130	245	245	370	370	480	480	600	705
Stove / Microwave	45	45	50	50	55	55	60	60	65	70
Refrigerator 1/	45	50	50	50	85	85	85	85	85	85
Clothes washer	20	35	35	35	45	45	45	55	55	65
Clothes dryer	15	15	25	25	35	35	35	35	40	50
Dishwasher	35	35	45	45	60	60	70	70	80	95
Freezer 1/	70	70	70	70	70	70	70	70	70	70
Furnace fan	15	15	20	20	20	25	25	30	30	35
Room air conditioner	65	65	65	65	65	65	65	65	65	65
Television / radio	5	5	10	10	20	20	20	20	25	25
Lights	50	55	75	80	90	90	95	100	120	120
Space heater (portable) 1/	130	130	130	130	130	130	130	130	130	130
Misc. small appliances	30	30	45	45	65	65	75	80	95	105
Engine Heaters	195	195	195	195	195	195	195	195	195	195
Hot Tub	360	360	360	360	360	360	360	360	360	360

1/ If more than one of these appliances are present in a quarters unit, multiply the KwH consumption times the number of appliances to determine the total KwH consumed for each appliance category.

NOTE: FOR APPLIANCES OPERATED BY FOSSIL FUELS, SEE TABLE 16a.

TABLE 16a MONTHLY FOSSIL FUEL CONSUMPTION: APPLIANCES AND EQUIPMENT

Appliance/ Equipment	Gross Square Feet of Living Space									
	Under 301	301-500	501-700	701-1,100	1,101-1,300	1,301-1,500	1,501-1,900	1,901-2,100	2,101-2,500	Over 2,500
Hot water heater										
Natural gas MCF	.55	.55	1.05	1.05	1.58	1.58	2.05	2.05	2.56	3.01
Propane Gallons	5.61	5.61	10.71	10.71	16.12	16.12	20.91	20.91	26.11	30.70
Fuel oil Gallons	3.87	3.87	7.39	7.39	11.12	11.12	14.43	14.43	18.02	21.19
Kitchen Range										
Natural Gas MCF	.19	.21	.21	.21	.36	36	.36	.36	.36	.36
Propane Gallons	1.94	1.94	2.14	2.14	2.35	2.35	2.65	2.65	2.86	3.06
Fuel oil Gallons	1.34	1.34	1.48	1.49	1.62	1.62	1.83	1.83	1.97	2.11
Refrigerator 1/										
Natural Gas MCF	.19	.21	.21	.21	.36	.36	.36	.36	.36	.36
Propane Gallons	1.94	2.14	2.14	2.14	3.67	3.67	3.67	3.67	3.67	3.67
Clothes dryer										
Natural Gas MCF	.06	.06	.11	.11	.15	.15	.15	.15	.17	.21
Propane Gallons	.61	.61	1.12	1.12	1.53	1.53	1.53	1.53	1.73	2.14
Freezer 1/										
Natural Gas MCF	.30	.30	.30	.30	.30	.30	.30	.30	.30	.30
Propane Gallons	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06	3.06
Space heater (portable) 1/										
Natural Gas MCF	.55	.55	.55	.55	.55	.55	.55	.55	.55	.55
Propane Gallons	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61	5.61
Fuel oil Gallons	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87	3.87

1/ If more than one of these appliances are present in a quarters unit, multiply the consumption times the number of appliances to determine the total consumed for each appliance category.

NOTE: To compute the cost per month for an appliance that is fueled by a fossil fuel, multiply the consumption listed by the unit cost found in Table 17 of this report.

G. WATER AND SEWER CONSUMPTION/COST CALCULATIONS

In accordance with OMB Circular No. A-45 and Departmental policies and guidelines, when utilities are furnished by the Government, charges shall be based upon regional average residential rates and consumption levels applicable to private rental housing in the survey region.

Where regional survey procedures are used to establish base rental rates, *the charges for Government-furnished water and sewer services, must be based upon regional average water and sewer rates*, and *not* the rates prevailing in the nearest Established Community. In determining the regional average rates, the water and sewer rates for each survey community were obtained and averaged.

Thus, where the water service is unmetered, and where the Government furnishes water and sewer services, *including well water and septic waste disposal systems*, the regional average flat rate charges, shown below, shall be used. These charges are based upon (1) the average of the monthly service costs (including taxes, service charges, etc.) in all surveyed communities; and (2) consumption levels (based on numbers of bedrooms) contained in planning guides published by the Department of Housing and Urban Development (HUD). The rates below are based upon the number of bedrooms contained in a dwelling.

Flat Rate Water and Sewer Charges

Number of Bedrooms	Monthly Charges			Total
1 (or less)	$10.80 water	+	$11.40 sewer	= $22.20
2	$14.00 water	+	$13.00 sewer	= $27.00
3	$18.00 water	+	$15.75 sewer	= $33.75
4	$23.00 water	+	$18.00 sewer	= $41.00

H. GOVERNMENT PROVIDED METERED UTILITIES

Where the Government provides the utilities, and the consumption is metered *at the quarters unit level*, the following unit charges will apply.

TABLE 17 UTILITY CHARGES (COST PER UNIT)

Do not calculate the total cost of electricity in steps, such as the first 500 KwH costs so much, then the second 500 KwH costs so much, etc.

a. Electricity

KwH Consumed Per Month	Charge Per KwH
0 - 500	$.099
501 - 1,000	$.093
1,001 - 1,500	$.092
Over - 1,500	$.091

b. Fuel Oil #2 — $1.59 per gallon.

c. Propane — $1.41 per gallon.

d. Natural Gas — $8.36 per MCF (1,000 cubic feet).

e. Water

Water Consumed per Month	Cost Per Gallon
1 - 3,000 gallons	$0.0036
3,001 - 5,000 gallons	$0.0028
5,001 - 7,500 gallons	$0.0024
Over - 7,500 gallons	$0.0023

f. Sewer

Sewer Consumed Per Month	Cost Per Gallon
1 - 3,000 gallons	$0.0038
3,001 - 5,000 gallons	$0.0026
5,001 - 7,500 gallons	$0.0021
Over - 7,500 gallons	$0.0018

I. GARBAGE/TRASH REMOVAL SERVICE RATES

In the case of garbage and trash hauling, as with other Government-provided services, OMB Circular No. A-45 requires the charges to be based upon the domestic rates for comparable services provided to occupants of private rental units in the survey area.

The garbage and trash services provided to quarters occupants vary from weekly to daily service. Establishment of a service charge based upon the service in the nearest established community may or may not reflect a similar level of service. Therefore, the charge for garbage and trash collection, when conducted by the Government, will, regardless of quarters type, be **$12.30 per quarters unit per month**.

J. CHARGES FOR APPLIANCES AND RELATED SERVICES

OMB Circular No. A-45 requires agencies to charge occupants of Government quarters for appliances, furnishings and services which the Government provides with the quarters. The charges for appliances, furnishings and services most typically provided by Federal agencies are found in Table 18. The monthly recapture cost of the items in Table 18 were determined from information gathered by contractors in the survey communities of all QMIS regions, and from special studies conducted by the QMIS Program Office.

Agencies providing appliances, furnishings or services that are not included in Table 18 are responsible for establishing an appropriate monthly charge which reflects the private market value of the item(s) provided. In such cases, the agency or bureau should advise the QMIS Program Office to ensure that subsequent regional survey reports include charges for all Government-provided appliances, furnishings and services.

TABLE 18 MONTHLY CHARGES FOR APPLIANCES & RELATED SERVICES

APPLIANCES		SERVICES AND FURNISHINGS	
Range (Gas / Electric) *	(+/-) $3.60	Storage Shed (Per Unit)	$2.55
Refrigerator *	(+/-) $3.30	Furniture (Per Room)	11.85
Clothes Washer	3.80	Swimming Pool	
Clothes Dryer	3.20	Private Pool	60.00
Dishwasher	3.15	Community Pool	20.00
Microwave Oven	1.45	Satellite Dish	17.05
Trash Compactor	3.60	Cable Television	22.10
Freezer	1.90	Premium Channel (Each)	14.85
Freezer (Community)	1.00	Maid Service	65.65
Window Air Conditioner		Lawncare (Per Mowing)	
Refrigerated Unit	4.10	Houses (Excluding Plexes)	20.00
Evaporative (Swamp) Unit	3.05	All Other Classes	10.00
Free Standing Stove	3.65	Snow Removal (Per Removal)	11.90
Fireplace Insert	4.40	Firewood (Per Cord)	122.80
Lawn Mower	3.80		
Hot Tub	33.15	ELECTRIC CREDITS	
		Well pump (0-1 Bedroom)	1.05
Community Laundry		Well pump (2 Bedrooms)	1.65
(Non-Coin Operated)		Well pump (3 Bedrooms)	2.40
Washer Only	1.90	Well pump (4+ Bedrooms)	3.25
Dryer Only	1.60		
Washer and Dryer	3.50	Sewer Lift Pump (0-1 Bedroom)	1.05
		Sewer Lift Pump (2 Bedrooms)	1.05
		Sewer Lift Pump (3 Bedrooms)	1.25
		Sewer Lift Pump (4+ Bedrooms)	1.65
ISOLATION ADJUSTMENT FACTOR	2.60	Base Radio	1.05
		Remote Control Relay	1.05
		Sump Pump	1.05
		Radon Mitigation Fan	9.55

** If the Government provides one range and refrigerator, no additions or deductions are made.*

If the Government does not provide a range or a refrigerator, deduct the amount shown above.

If the Government provides 2 or more ranges or refrigerators, add the amounts shown above for each appliance furnished in excess of one range and one refrigerator.

VII. ADMINISTRATIVE ADJUSTMENTS.

Once the MBRR is established, certain adjustments (e.g. for isolation and amenity deficiencies) are authorized by OMB Circular No. A-45. These administrative adjustments are established by OMB and are not derived from regional surveys conducted by the QMIS Program Office.

The administrative adjustments contained in OMB Circular A-45, and described below, are not authorized for dormitories, bunk houses, or transient quarters. This is because the rental rates for those housing classes are administratively established, through extensions of the principle of comparability, and are not based directly upon market comparability.

A. SITE AMENITY ADJUSTMENTS

Living conditions at some Government housing sites are not always the same as those found in the survey communities. In the communities surveyed, the amenities discussed below (and in OMB Circular A-45) are generally present and their contributory value is included in the contract rent and in the quarters MBRR's determined from the tables in this report. Thus, if any amenity listed below is present at the quarters site, no positive adjustment is made for that amenity because its presence has already accounted for in the MBRR. However, the lack of an amenity discussed below represents a less desirable condition that should be reflected as a **negative** percentage adjustment to the quarters MBRR or CPI-adjusted MBRR (CPI-MBRR), whichever is applicable.

1. **Reliability and adequacy of water supply**. The water delivery system at the quarters site should provide potable water (free of significant discoloration or odor) at adequate pressure at usual outlets. If the water delivery system at the quarters site does not meet these conditions, 3 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

2. **Reliability and adequacy of electric service**. Electric service at the quarters site must equal or exceed a 100-ampere power system, and should provide 24-hour service under **normal** conditions. When evaluating the electric service, housing managers are reminded that OMB Circular A-45 recognizes that occasional temporary power outages are considered to be "**normal**" conditions. Furthermore, if an adequate back-up generator is available, then the electric service amenity will be considered to be reliable and adequate regardless of the reliability of the primary power source. When electric service is inadequate and unreliable, 3 percent should be deducted from the MBRR or CPI-MBRR whichever is applicable.

3. **Reliability and adequacy of fuel for heating, cooling and cooking.** There should be sufficient fuel storage capacity to meet prevailing weather conditions and needs. Where electricity is used as the heating, cooling or cooking "fuel," an adjustment can only be made when a deduction has been made for deficient electric service (see paragraph VII.A.2, above). If the fuel delivery/storage system is inadequate, 3 percent should be deducted from the MBRR or the CPI-MBRR, whichever is applicable.

4. **Reliability and adequacy of police protection**. Law enforcement personnel, including Government employees with law enforcement authority, should be available on a 24-hour basis. OMB Circular A-45 defines "**availability**" as the ability of law enforcement officers to respond to emergencies at the quarters site as quickly as a law enforcement officer in the nearest established community could respond to an emergency in the nearest established community.

OMB Circular A-45 further provides that where part-time officers serve the quarters site, the fact that the officers are part-time does not necessarily mean that they are less available than officers in the nearest established community. The important point is that the availability determination must be based on comparative response times (quarters site vs. the nearest established community) - not the employment conditions of the officers serving the quarters site.

Finally, OMB Circular A-45 provides that gaps in availability due to temporary illness or injury, use of annual leave, temporary duties, training, or other short absences, do not render law enforcement personnel "unavailable" at the quarters site.

If, after applying these guidelines, it is determined that the law enforcement protection at the quarters site is unreliable and inadequate in comparison to the reliability and adequacy of law enforcement protection in the nearest established community, 3 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

5. **Fire insurance availability or reliability and adequacy of fire protection**. Fire insurance should be available (for the quarters) with the premium charge based upon a rating equal to the rating available to comparable housing located in the nearest established community. Alternatively, adequate equipment, an adequate supply of water (or fire retardant chemical), and trained personnel should be available on a 24-hour basis to meet foreseeable emergencies. OMB Circular A-45 provides that **if either element is present (adequate insurance or an adequate fire fighting capability), no adjustment is authorized**. If both elements are missing, 3 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

6. **Reliability and adequacy of sanitation service**. An adequately functioning sewage disposal system and a solid waste disposal system should be available. OMB Circular A-45 considers septic, cesspool or other systems adequate even though they may require periodic maintenance, as long as they are usable during periods of occupancy. If the sanitation service at the quarters site is unreliable or inadequate, 3 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

7. **Reliability and adequacy of telephone service**. Access to commercial telephone facilities should be available on a 24-hour basis. Deductions (except as provided below) are not allowed for occasional temporary interruptions of telephone service. OMB Circular A-45 allows specific deductions for various levels of service and privacy. These are explained below.

a. The MBRR or CPI-MBRR (whichever is applicable) should be reduced by 3 percent if telephone service is not available within the quarters or within 100 yards of the quarters.

b. The MBRR or CPI-MBRR (whichever is applicable) should be reduced by 2 percent if there is no telephone service within the quarters, but telephone service (either private or party line) is available within 100 yards of the quarters.

c. The MBRR or CPI-MBRR (whichever is applicable) should be reduced by 1 percent if telephone service is available in the employee's quarters, but the service is not private line service and/or the service is not accessible on a 24-hour per day basis.

8. **Noise and odors**. If there are frequent disturbing or offensive noises and/or odors at the quarters site, 3 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

9. **Miscellaneous improvements**. One or more of the following improvements should be available at the quarters site: paved roads/streets, sidewalks or street lights. If any one of these improvements is present, no deduction is authorized. If all three of these improvements are missing (i.e., there are no paved roads/streets **and** there are no sidewalks, **and** there are no street lights), 1 percent should be deducted from the MBRR or CPI-MBRR, whichever is applicable.

B. ISOLATION ADJUSTMENT

In some cases, Government quarters are located far from the nearest established community (see paragraph IX.C for the OMB's definition of "established community"). In addition, different modes of transportation (travel categories) may serve to further isolate the quarters from the nearest established community. In situations where the quarters location and the travel categories meet the requirements contained in OMB Circular A-45, an isolation adjustment should be applied. To determine whether an isolation adjustment applies, and the amount of the adjustment (if one does apply), you should follow the steps in the Isolation Adjustment Computation Schedule, shown on the following page. This schedule is a (modified) reproduction of the appendix to OMB Circular A-45, and is included in this report for illustrative purposes, only. Therefore, you should use the form prescribed by your agency or bureau when documenting the isolation adjustment.

Isolation Adjustment Computation

- *Step 1.* Determine the one-way distance in miles (from the quarters to the nearest established community) for each category of transportation listed in Figure 1. Enter mileage(s) in the appropriated block(s) under Column B.

- *Step 2.* Multiply mileage figures entered in Column B by point values listed in Column A for each affected category of transportation to produce one-way points for each category. Add 29 points to the category 4 subtotal and 27 points to the category 5 subtotal to reflect relative differences in cost or time by use of these modes of travel.

- *Step 3.* Add all categories of one-way points in Column C to produce one-way points. (The total must exceed 30 points or there is no adjustment for isolation.)

Figure 1

Category of Travel	Column A Point Value		Column B One-way Miles			Column C One-way Points
(1) Paved road or rail	1.0	X	___	=		___
(2) Unpaved but improved road	1.5	X	___	=		___
(3) Unimproved road	2.0	X	___	=		___
(4) Water, snowmobile, pack animal, foot or other special purpose conveyance	2.5	X	___	=	___+29	___
(5) Air	4.0	X	___	=	___+27	___
				=		___
TOTAL ONE-WAY POINTS						

- *Step 4.* Calculate the Isolation Adjustment Factor (IAF) using the following OMB formula: Multiply 2 (to reflect round-trip points) by 4 (to reflect number of trips per month) and then multiply by $x.xx (GSA's current automobile allowance as of the last day of September of each year). For example, the GSA mileage allowance, as of September 30, 2000, was $0.325 per mile, resulting in a IAF of 2.60.

ISOLATION ADJUSTMENT FACTOR = 2.60

- *Step 5.* Multiply total adjusted points by the Isolation Adjustment Factor to produce the monthly adjustment for isolation (rounded to the nearest whole dollar).

MONTHLY ADJUSTMENT = ___

C. LOSS OF PRIVACY

Some quarters occupants are subject to a loss of privacy during non-duty hours by virtue of **public visits which occur several times daily**. In other cases, quarters occupants may be **inhibited from enjoying the full range of activities normally associated with living in private rental housing** (such as where restrictions are imposed on activities in quarters at national cemeteries, or where quarters are in view of prison inmates). In such cases, OMB Circular A-45 allows a deduction from the MBRR or CPI-MBRR (whichever is applicable) of up to 10 percent. OMB Circular A-45 instructs housing managers to establish proportional adjustments to reflect situations of less frequency or seriousness in their impact upon privacy or usage, or to reflect seasonal variations.

D. EXCESSIVE OR INADEQUATE SIZE

Quarters occupants are sometimes provided dwellings that are excessively large or small for their needs. This may be because the range and variety of quarters available at an installation may be much less than that which is available in private rental markets. In such cases, OMB Circular A-45 allows a deduction from the MBRR or the CPI-MBRR (whichever is applicable) of up to 10 percent. The Circular instructs that the deduction should be in direct proportion to the degree of excess or inadequacy, and that the deduction must not continue beyond one month after suitable quarters are made available. Before this adjustment is applied, local housing managers should consult with managers within their agencies or bureaus to determine whether other alternatives (such as closing off rooms and other excess space) would offer a more suitable means of adjustment.

E. LIMITATIONS TO ADMINISTRATIVE ADJUSTMENTS

Administrative adjustments cannot be applied without limit. OMB Circular A-45 provides that the MBRR or CPI-MBRR cannot be reduced by more than 50 percent unless an isolation is authorized and applied. For quarters which receive an isolation adjustment, the MBRR or CPI-MBRR may not be reduced by more than 60 percent. These limitations do not apply to excessive heating or cooling adjustments, which are described in paragraph IX.A of this report.

VIII. CONSUMER PRICE INDEX ADJUSTMENTS

OMB Circular A-45 requires annual verification, and adjustment (when necessary) of the following rental components that are presented in this report: (1) the Monthly Base Rental Rates (MBRR's); (2) the charges for related facilities (utilities, appliances, furnishings and services); and (3) the Isolation Adjustment Factor (IAF). These verifications and adjustments are to be made, essentially, in each interim year between baseline regional surveys.

Generally, OMB Circular A-45 specifies that these changes are to be based upon September index levels of specified components of the Consumer Price Index (CPI); and the GSA temporary duty mileage allowance in effect as of September 30, of each year. These changes must be implemented at the beginning of the first pay period in March of each following year.

The QMIS Program Office is responsible for determining the amounts of these changes, and for providing QMIS Program participants with the information, the software and the instructions needed to implement the required changes. This information is usually distributed to each National Quarters Officer in November of each year. National, regional or installation quarters managers (as required by your agency or bureau) are responsible for implementing these annual rental adjustments.

IX. OTHER OMB CIRCULAR A-45 RENT CONSIDERATIONS

A. EXCESSIVE HEATING OR COOLING COSTS

OMB Circular A-45 authorizes a deduction from the Monthly Base Rental Rate (MBRR) or the Consumer Price Index - adjusted Monthly Base Rental Rate (CPI-MBRR), whichever is applicable, when quarters are unusually costly to heat or cool. This adjustment is allowed only when (1) the excessive heating or cooling costs are due to the poor design of the quarters or the lack of adequate insulation/weather-proofing; and (2) when the energy/fuel used for heating and/or cooling is metered. This adjustment will vary from quarters-to-quarters, but is the difference between the actual heating and/or cooling costs paid by the quarters occupant and 125 percent of the cost of heating and/or cooling a comparable (but adequately constructed and insulated) dwelling located in the same climate zone. For more information on this adjustment, you should consult your agency or bureau policies.

B. INCREMENTAL ADJUSTMENTS

New baseline regional surveys or annual CPI adjustments may occasionally increase quarters rents by more than 25 percent. When this occurs, OMB Circular A-45 allows housing managers to impose the increase incrementally over a period of not more than one year. The Circular also requires that such increases must be applied in equal increments on at least a quarterly basis.

C. ESTABLISHED COMMUNITY

OMB Circular A-45 has established the following minimum standards for use in determining which population centers (cities, towns, etc.) may be used as "established communities" when determining quarters rents.

1. An established community must have a year-round population of 1,500 or more (5,000 or more in Alaska). The population determinations must be based upon the most recently conducted decennial census.

2. An established community must have at least one doctor and one dentist, who are available to all quarters occupants on a non-emergency basis.

3. An established community must have a private rental market with housing available to the general public. This requirement excludes communities on military posts, Indian reservations and other Government installations which may meet the other criteria contained in paragraphs IX.C.1 and 2, above.